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**US Army Corps
of Engineers
New Orleans District**

**EVALUATION OF MAGNETIC ANOMALIES
LOCATED IN LOWER BAYOU TECHE,
ST. MARY PARISH, LOUISIANA**

July 1991

FINAL REPORT

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PREPARED FOR:

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<p>This report presents the results of testing and assessment of eleven previously recorded magnetic anomalies located in Lower Bayou Teche, St. Mary Parish, Louisiana. The survey was conducted for the U.S. Army Corps of Engineers, New Orleans District, pursuant to Delivery Order 01, of Contract DACW29-90-D-0018. Maintenance dredging of Lower Bayou Teche may impact several of the eight anomalies evaluated in this study.</p> <p>The objectives of the study were to conduct detailed survey, and assessment of eight previously located anomalies (Goodwin, Hinks et al. 1990). These were Anomalies 8, 13, 24a, 29, 30, 31, 33, and 58. Three other anomalies, Anomaly Nos. 23, 24b, and 55 also were briefly examined. Methods utilized during survey included relocation of each anomaly with a magnetometer; informal magnetic and fathometer survey of each anomaly and its vicinity, physical search of the river bottom at each anomaly location; use of a metal detector to assess the depth of the magnetic source of each anomaly; probing of the river bottom to locate buried structures; and limited excavation with a jet probe to document the source, nature, and research potential of each of the eight anomalies.</p> <p>Two of the anomalies, Anomaly No. 30 and 58 could not be relocated. Four of the anomalies apparently are associated with modern debris: Anomaly Nos. 8, 13, 29, and 31. Anomaly No. 33 appears to be an isolated object. Evidence of structure was observed 14 to 15 ft below water surface, however, it occurs below the project impact zone. One archeological site, the Anomaly No. 23/24 Complex (Site 16SMY76) was defined. It consists of two wooden barges and some twentieth century bridge remains.</p>					
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DEPARTMENT OF THE ARMY

NEW ORLEANS DISTRICT, CORPS OF ENGINEERS

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REPLY TO
ATTENTION OF:

June 4, 1991

Planning Division
Environmental Analysis Branch

To The Reader,

This cultural resources effort was designed, funded, and guided by the U.S. Army Corps of Engineers, New Orleans District as part of our cultural resources management program. The work documented in this report was the hands-on evaluation of eight magnetic anomalies identified during a recent remote sensing survey of Lower Bayou Teche. These anomalies were selected for further evaluation because they are in the potential impact area of proposed maintenance dredging and they are correlated with the reported locations of sunken historic boats.

We concur with the findings and recommendations contained in this report. The anomaly 23/24 complex will not be affected by the proposed work and, therefore, no further investigations are planned.

Michael E. Stout
Technical Representative

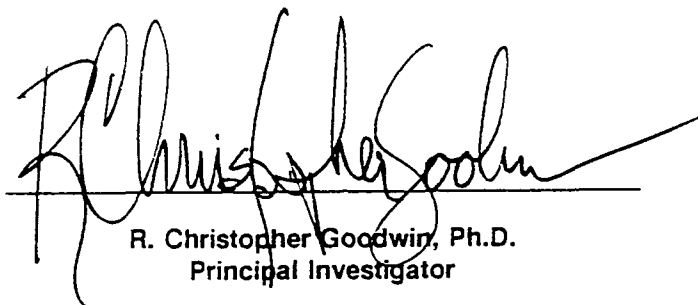
Van T. Button
Authorized Representative
of the Contracting Officer

R. H. Schroeder, Jr.
Chief, Planning Division

EVALUATION OF MAGNETIC ANOMALIES LOCATED IN LOWER BAYOU TECHE, ST. MARY PARISH, LOUISIANA

FINAL REPORT

By



R. Christopher Goodwin, Ph.D.
Principal Investigator

With

William P. Athens and Allen R. Saltus, Jr.

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July 1991

For

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We would like to express our gratitude to the individuals who helped in the research and production of this report. Mr. Michael Stout, COTR, provided valuable advice throughout the project. Mr. Van T. Button served as COR. Our thanks goes out to Mr. William Lind at the National Archives for his help in locating the letters of Major C. W. Howell. Ms. Mickey Moran performed valuable background research. The field work was performed by Mr. William P. Athens, Mr. Colby Child, Mr. David Courington, Ms. Charlotte Donald, and Mr. Allen R. Saltus, Jr. Figures and paste ups were completed by Ms. Karen Adoue, Ms. Shirley Rambeau and Ms. Cara Robertson. Ms. Christine Herman and Ms. Robertson produced the report.

CHAPTER I

INTRODUCTION

This report presents the results of testing and assessment of eleven previously recorded magnetic anomalies located in Lower Bayou Teche, St. Mary Parish, Louisiana. This study was conducted during November 1990, by R. Christopher Goodwin & Associates, Inc., for the U.S. Army Corps of Engineers, New Orleans District, pursuant to Delivery Order 01 of Contract DACW29-90-D-0018.

Current investigations were designed to provide evaluatory data on eight potentially significant magnetic anomalies located within Lower Bayou Teche. The eight anomalies, identified previously by Goodwin, Hinks et al. (1990), are Anomalies No. 8, 13, 24a, 29, 30, 31, 33 and 58. These anomalies first were identified during a four month study of the Lower Bayou Teche and Wax Lake Outlet area that was conducted to determine the effect of dredging on the area's cultural resources. Maintenance dredging of Lower Bayou Teche will remove shoal material from a previously dredged navigation channel. The channel will measure approximately 24.4 m (80 ft) wide, and over 2.4 m (8 ft) deep. Maintenance dredging, scheduled for 1991, may impact several of the eight anomalies evaluated in this report.

During the previous study, 415 acres and approximately 5.0 river miles were surveyed for archeological resources (Figure 1; Goodwin, Hinks et al. 1990). The riverine survey of Bayou Teche utilized a Geometrics 806 proton precession magnetometer to identify magnetic anomalies within the survey area. A total of 62 riverine magnetic anomalies were identified during the previous survey (Goodwin, Hinks et al. 1990).

Only 8 of the 62 anomalies were thought to have a known historic association and/or to fall within the proposed dredge impact area. Based on these evaluation criteria, as well as the size, shape, and amplitude of each of the anomalies, Anomaly Nos. 8, 13, 24a, 29, 30, 31, 33, and 58 were recommended for additional investigation (Goodwin, Hinks, et al. 1990). Three additional anomalies, anomaly Nos. 23, 24b, and 55 also were briefly investigated during this research. A total of 11 anomalies were investigated as a result of this project; three of them, Anomaly Nos. 23, 24a and 24b (16SMY76) were lumped together and examined collectively because of their close proximity to one another. Since Anomaly No. 55 was relocated during the investigation of Anomaly No. 58, it too was subjected to a brief reconnaissance level survey.

The objectives of this study were to conduct detailed survey of each of the eleven anomalies, and to assess both their nature and their significance as appropriate, applying National Register of Historic Places criteria (36 CFR 60.4). Methods utilized during survey included: (1) relocation of each anomaly with a magnetometer; (2) informal magnetic and fathometer survey of each anomaly and its vicinity; (3) physical search of the river bottom at each anomaly location; (4) use of a metal detector to assess the depth of the magnetic source of each anomaly; (5) probing of the river bottom to locate buried structures; and, (6) limited excavation with a jet probe to uncover the source(s) of each anomaly. These procedures were designed to document the source, nature, and research potential of each of the eleven anomalies.

Organization of the Report

The project setting is examined in Chapter II. Emphasis is placed on the prior effects of both navigation and flood control projects on submerged cultural resources in the area. This chapter also includes a discussion of related legislation and projects. A brief review of waterborne commerce along Bayou Teche also is included. Reviews of previous archeological investigations and of previous terrestrial, riverine, and remote sensing studies in the project vicinity are presented in Chapter III. This chapter also examines field methods and results of the previous study (Goodwin, Hinks et al. 1990) and it provides an

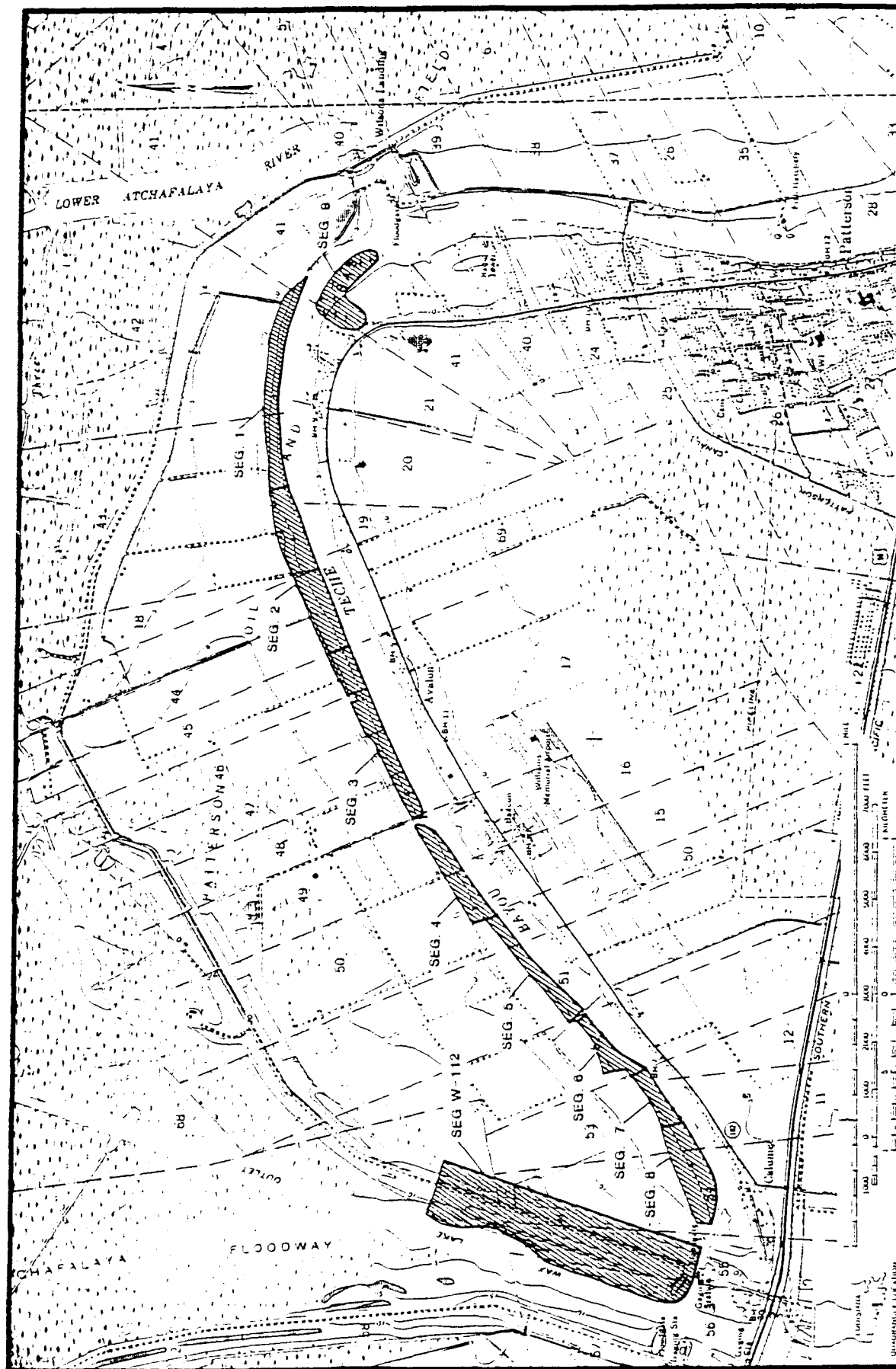


Figure 1. Excerpt from the 1966, photorevised 1981, Patterson, Louisiana, USGS 7.5' series topographic quadrangle, showing the Lower Bayou Teche and Bisland Battlefield areas (after Goodwin, Hinks, et al. 1990)

in depth analysis of the eleven anomalies identified during that investigation. The field methodology including discussion of the equipment, procedures, and methods employed during the present investigation is described in Chapter IV. Survey results are presented in Chapter V. Conclusions and management recommendations are discussed in Chapter VI.

CHAPTER II

PROJECT SETTING

Introduction

The project area includes eleven specific loci within the confines of Lower Bayou Teche between River Miles 5.0 and 0.0. Bayou Teche originates in Bayou Courtableau and flows southeast for approximately 125 miles, where it intersects the lower Atchafalaya River approximately eleven miles north of Morgan City, Louisiana. The Bayou Teche channel drains little territory of its own; it represents the remains of a relict course of both the Mississippi and Red Rivers. This discussion provides a brief review of the geomorphological development of Bayou Teche, and of its use as an historic waterway. A discussion of flood control, harbors, and rivers legislation, and its impact on Bayou Teche and its submerged cultural resources also is included. A more detailed review of the geomorphological development of the Bayou Teche region is contained in Goodwin, Hinks et al. (1990:4-24).

Geomorphological Development

Bayou Teche is a small tributary occupying a large alluvial ridge. Local drainage is away from the channel; therefore, Bayou Teche acts only as a flume routing drainage from Bayou Courtableau to the Vermilion and lower Teche systems (U.S. Army Corps of Engineers [USCOE] 1976). This channel represents the abandoned course of the Teche-Mississippi and the Teche-Red Rivers (Saucier 1974). The Mississippi River occupied this course approximately 6,000 years ago, and provided sediment and water to the Teche delta complex until rising sea levels resulted in the abandonment of Bayou Teche and the Teche delta complex (Smith, et al. 1986).

The Teche-Red River continued to flow down Bayou Teche, drawing only a small portion of the Red River discharge, until approximately 500 to 2,400 years ago. At that time, the Teche-Red River shifted to its present course through Moncla Gap. Archeological evidence indicates that this diversion occurred sometime after 2,000 years ago (Pearson et al. 1986).

The geomorphological composition of the natural levee of Bayou Teche reflects the above events. Three natural levees, informally designated as the "outer", "middle," and "inner" natural levees make up the current levee configuration. These levees represent overbank sediments deposited by the Teche-Mississippi, Teche-Red River, and Bayou Teche, respectively (Gould and Morgan 1962; Morgan 1976; Goodwin, Hinks et al. 1990).

Navigational Use of Bayou Teche

Historically, Bayou Teche has been a major route of waterborne commerce, playing an important role during the Civil War, and representing a major access route to the city of New Orleans. In a discussion pertaining to the commercial value of the Teche, Major Stickney wrote:

The commerce of the Teche is considerable, and is probably greater than that of any stream of the same length in Louisiana. The lands bordering the bayou are very rich and are all under cultivation, principally in sugar cane. It may be said to be the center of the sugar industry of the State. Cotton, cattle, hides, wool, moss, lumber, &c., are also produced in quantities. The trade supports a line of steamers which make regular trips to

New Orleans about three times in two weeks, besides steamers which make daily trips to Morgan City and other small steamers in local trade (ARCE 1884:1273).

Until the second half of the nineteenth century, watercraft provided the primary mode of travel for people living along the Teche. Schooners, steamers, barges, and packet boats were commonplace. Reviews of early waterborne commerce and travel along the Teche are provided by Goodwin, Yakubik et al. 1985, and by Pearson, Castille et al. 1989.

In 1819, the *James Lawrence* was the only schooner making regular trips between New Orleans and the Bayou Teche. By 1821, the Attakapas Steam Boat Company had constructed the 295-ton steamer, the *Teche*, and monopolized steam navigation on the bayou. However, high operating expenses and frequent snags led to that firm's failure in 1825 (Goodwin, Yakubik, et al. 1985; Conrad 1979:211).

Various steamers, including the 217-ton cattleboat, the *Volcano*, and the 48-ton *Louisville*, were used to transport agricultural commodities produced along the Teche. By the 1840s and 1850s, such steamboats as the *St. Helena*, the *Kentucky*, the *St. Mary*, the *Judge*, the *McLean*, and the *Billow* traveled frequently along the Teche (Goodwin, Yakubik et al. 1985).

Bayou Teche played an important role in the Civil War, as evidenced by the Bayou Teche Campaign. Numerous vessels, including the *Fly Catcher*, the *J. B. Cotton*, and several brick barges, were scuttled intentionally to impede water travel. The *Fly Catcher* was a screw propeller-driven steamer; it was sunk intentionally and used as an obstruction during the Teche Campaign. The *J. A. Cotton* was a sidewheel steamboat; she also was sunk to prevent Union forces from navigating up the Teche.

Steamboats continued to travel the Teche during the postbellum period. The Attakapas Mail Transport Line and its successor, Captain John Newton Pharr's Teche Mail Steamers, dominated Teche steamboating until 1877. However, by the turn of the century, railroading provided serious competition. The last steamboat to operate on Bayou Teche, the logging boat *Amy Hewes*, was retired in 1943 (Goodwin, Yakubik et al. 1985:186).

Bayou Teche continues to play an important role in Louisiana's economy. From 1979 - 1986, average annual traffic approximated 635,745 tons; cargoes included marine shells, crude petroleum, and sugar (USCOE 1989). Historically, sugar, molasses, cotton, rice, bricks, lumber, poultry, and other miscellaneous items were routinely shipped along the Teche (Pearson, Castille et al. 1989; ARCE 1908).

Navigational Improvements to Bayou Teche

Bayou Teche has been the subject of numerous pieces of legislation providing for survey, assessment, clearing, and maintenance of the channel, a review of legislation pertaining to the project area follows. The first piece of legislation, provided under the Rivers and Harbors Act of March 2, 1829, provided authorization for a study to examine the feasibility of improving and shortening navigation of the channel. That survey was completed. Subsequent legislation in May 1870 approved a survey assessing the cost of removing obstructions to navigation within the Teche.

This assessment was conducted under the direction of Major C. W. Howell. Mr. W. D. Duke, a civil engineer from St. Martinsville, and two assistants completed the survey. During survey, Duke recorded the distribution of various obstructions, including: wrecks, snags, piles, and sunken logs, as well as overhanging trees and undergrowth. Duke's notes were used to produce a map of lower Bayou Teche documenting the distribution of the various obstructions from the mouth of Bayou Teche to approximately River Mile 75.5 (Figure 2). A copy of Mr. Duke's field notes are included in Appendix I and II.

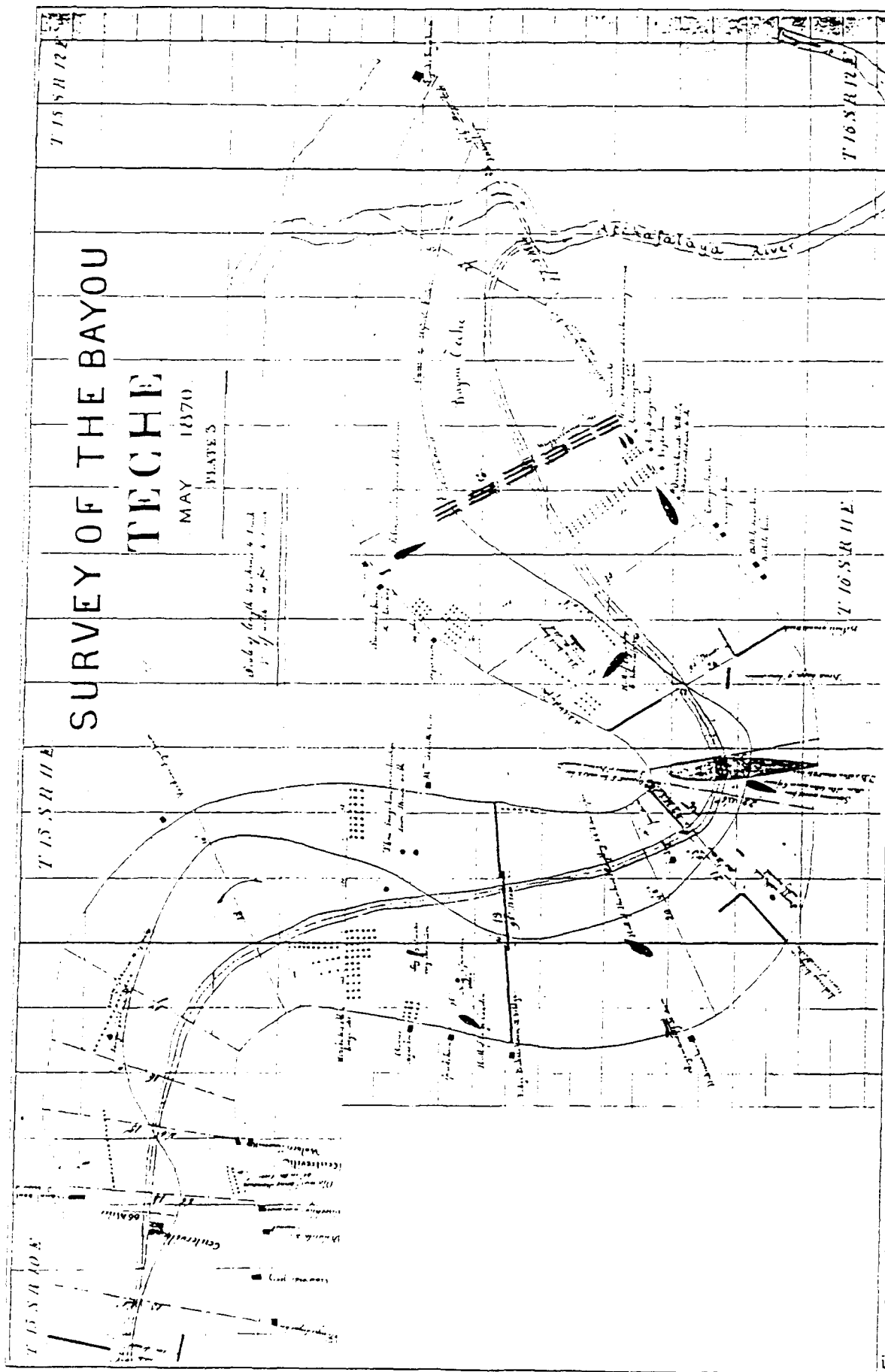


Figure 2. An Excerpt of Major C. W. Howell's Survey of Bayou Teche, Plate 3 (Cartographic Division, National Archives, Records Group 77, Civil Works Map File, M 137-1)

Duke identified a variety of wrecks within the project area (Appendix I). These included several brick barges, the *J. B. Cotton*, the *Fly Catcher*, several schooners, the *Turtle*, and the barge *John Bowles*. In addition to recording their location, Duke recorded data regarding each ship's contents, condition, length, beam, and distance from shore. As a result of this survey, approximately thirteen wrecks were totally, and three partially removed from the bayou channel. This removal is discussed more fully in the following section.

The Rivers and Harbors Act of June 5, 1884 provided monies for continuing improvement of the Teche, and called for the removal of obstructions from the "mouth to the head of the stream." This work was completed. Later, in February 1886, it was reported that a channel existed of sufficient width and depth to permit a forty foot-wide vessel drawing five feet of water to ascend the river to a point near Arnaudville (ARCE 1915).

The Rivers and Harbors Act of June 3, 1896 provided for additional survey and assessment of Bayou Teche. The results of this study were reported in June 1896; recommendations were made for enlarging the channel. No action was taken at that time, however, a similar recommendation again was made on March 2, 1907 (ARCE 1915).

Legislation on March 2, 1919 called for an increase in channel dimensions, from the mouth of Bayou Teche to Keystone Lock, Louisiana, a distance of 72.5 river miles. This document called for an 80 ft wide and 8 ft deep channel extending from the mouth of the stream to New Iberia, Louisiana, approximately 54.5 miles. From New Iberia to Keystone Lock (18 river miles), a 60 ft wide and 6 ft deep channel was authorized. A shallower, narrower channel (50 ft wide by 6 ft deep) was authorized for a 34 mile segment located north of Arnaudville. These improvements required dredging, and removal of snags and overhanging trees (ARCE 1938). By 1938, this project was 98 per cent complete. The Chief of Engineers (ARCE 1938) reported that:

"from the mouth to mile 5.8 a channel 8 x 80 feet, or greater, already existed, and a new channel has been excavated 8 x 80 feet from this point to mile 50.06, about 3.6 miles below New Iberia, and 8 x 60 feet from this point to New Iberia."

Under the Flood Control Mississippi River and Tributaries project, authorization was provided for the construction of the East and West Calumet floodgates at the intersection of Bayou Teche and the Wax Lake Outlet. Construction of these two floodgates was completed in February 1949, and in September 1950, respectively (ARCE 1963).

During 1963, dredging was conducted near the East and West Calumet floodgates (located upstream from the project area), to restore the approach channels to an 80 ft wide, 8 ft deep configuration. A total of 78,750 cubic yards of material was removed by dragline from the 1.73 mile segment between the East and West Calumet floodgate structure, and from between the West Calumet floodgate and the Shadyside Bridge.

On June 30, 1964 a contract was awarded for the removal of approximately 213,000 cubic yards of material from the 3.3 mi section of the Teche extending from Calumet, La. to near Luckland Plantation. Dredging to restore the 8 x 80 ft navigation channel began on July 20, 1964. The work was completed in September of 1964; approximately 245,623 cubic yards of material were removed during this dredging operation (ARCE 1964:516; 1965:505)

These dredging, snag removal, and clearing activities resulted in the deposition of dredgefill along the artificial levees of the Wax Lake Outlet, and along the natural levees of Bayou Teche. U.S. Army Corps

of Engineers records indicates that these areas were dredged with draglines and hydraulic dredges (ARCE 1963).

Recent archeological fieldwork identified these dredge deposits as discontinuous strips of variable width. The strips vary from 123 m (405 ft) to 29 m (96 ft) in width and primarily occupy the areas adjacent to the Bayou Teche. These deposits now consist of flat, wooded land, and of perennial swamp. Along portions of the right descending bank, the dredge-filled areas are submerged and covered by swamp; where these areas remain relatively dry, woods and thick underbrush are common (Goodwin, Hinks et al. 1990).

Auger and shovel testing conducted in conjunction with the previous archeological survey along Bayou Teche documented dredgefill deposits ranging in depth from 30 to 50 cm along the banks of the Teche, to 150 to 190 cm thick near the center of the dredgefill areas. Brick fragments, pieces of coal, rotted wood, and unidentified metal fragments were recovered during earlier assessment of the project area (Goodwin, Hinks et al. 1990).

Disturbance to the Area's Cultural Resources

Several processes have impacted cultural resources within the waters of Bayou Teche. These processes include channel and navigational improvements, dredging and snag removal, navigational disturbances, and modern construction. Each of these processes is reviewed below.

As a result of various Congressional acts, numerous surveys were conducted of the Bayou Teche channel. For example, from May 3 - 13, 1870, a survey directed by C. W. Howell was conducted to assess all obstructions to navigation within Bayou Teche. During survey, the field party identified two classes of obstructions: (1) obstructions located in the bed of the bayou, including wrecks, snags, piles, and sunken logs and, (2) obstructions located on the banks of the bayou, including overhanging trees, projecting logs, and overhanging undergrowth (Figure 2; ARCE 1870:348).

Howell instructed his field parties to keep accurate records regarding the locations of obstructions. Obstructions were referenced by plantation boundaries; descriptions were provided for:

Wrecks.--Dimensions, condition, how built, date of sinking, amount of machinery, (if any,) in what depth of water, how deep in mud or sand, how high above water, how much ought to be removed, what method of removal will probably be cheapest and most effective.

Snags and piles.--Dimensions, stability, in or out of channel.

Bridges.--How built, dimensions, width and arrangement of draw, position of draw with respect to channel and current.

Overhanging trees.--Size, if can be felled on shore or into stream.

Torpedoes.--If any, nature and location.

Bars.--Length, depth, nature and location (ARCE 1870:351).

The raw data collected by the survey still exists, it is contained in Appendices I and II. Appendix I includes data pertaining to the names and positions of each boat sunk in the Bayou Teche. In addition, a copy of the survey maps used to prepare Howell's 1870 *Survey of the Teche* map is included in Appendix II.

Appendix I and II represent documents submitted to Major Howell's report to Chief of Engineers A. A. Humphreys. Appendix I was transcribed since the original document proved too fragile to copy.

Howell designated numerous wrecks within the Bayou Teche for removal, and provided a general assessment of wrecks found throughout the Teche. Howell stated:

Some of the wrecks will be difficult of removal; but little besides the hull of each remains. All are visible at low water, most of them at high water. Nearly all are much decayed and partially broken up; the few that are comparatively sound can be shattered by several small charges of powder placed under them. All are but slightly imbedded in the mud. The bayou is narrow, and all the wrecks lie within from 10 to 75 feet of one bank or the other. The slope of the bed of the bayou and the banks is favorable for dragging out these wrecks either entire or piecemeal (ARCE 1870:348).

In addition to various wrecks noted up and down the bayou, Howell reported "but very few snags." "About one hundred piles should be removed from the lower end of a saw-mill boom just below Centerville." Numerous piles "in a line extending from the right bank nearly across the waterway at the upper line of Muggah's plantation," as well as "quite a number of logs (live oak)...left in the bed of stream by mill owners." Overhanging trees and projecting logs consisting of "drift logs or fallen trees with one end on the bank and the other projecting into the stream also were observed" (ARCE 1870:348-349).

A Congressional act of July 11, 1870 appropriated \$17,500 for removing obstructions from the Teche. On August 12, 1870, advertisements soliciting bids on the proposed work were issued; no bids were received. Plans were made to construct a wrecking-flat for delivery to Brashear City early in February 1871. Work to remove the obstructions began on February 15, 1871. By June 30, 1871, for a sum of \$8,363.80 all obstructions had been removed from the bayou, from its mouth to the town of New Iberia (ARCE 1871:516).

During Fiscal Year 1872, clearing work continued on the Teche, from New Iberia to Saint Martinville. Once this task was completed, "that portion of the stream below New Iberia was revisited, and some few obstructions that had before escaped notice removed, making altogether unobstructed navigation from Saint Martinville to the Atchafalaya River, a distance of about seventy-five miles" (ARCE 1872:556). A total of \$12,477.52 was expended to complete the project.

Howell reported the results of the survey as follows:

Thirteen wrecks totally removed, viz, of steamers *J. B. Cotton*, *Fly Catcher*, *News Boy*, *Gossamer*, *Diana*, *Minerva*, *E. J. Hart*, *Andrews*, and *Guide*; 2 schooners and 2 barges.

Three wrecks partially removed, viz, 2 steamers, *Rob Roy* and *Iberia*; 1 lighter.

One sunken raft, of 194 large live-oak logs, totally removed; 82 bridge piles pulled out and removed; 24 dangerous snags removed; 38 over hanging trees cut and removed from banks; 4 live-oak roots, with dangerous stumps, removed; 106 large projecting limbs cut and removed; 39 projecting logs removed (ARCE 1872:556).

However, Howell contradicted a previous report, in which he discussed the complete removal of the *Rob Roy*. "I am informed by the engineer in charge of the work now being done by the State of Louisiana

on the Teche, that this wreck [*Rob Roy*] was hauled ashore entire in three days, with only a steam capstan and drag ropes" (ARCE 1870:348).

With the exception of the *Rob Roy*, there is little information on how the thirteen wrecks were removed. However, in his 1870 report to Major General A. A. Humphreys, Howell proposed the following:

Shore tack can be conveniently and economically used for loosening portions of each wreck, occasionally aided by a light derrick on a flat alongside the wreck. Oxen with drag ropes or chains can be used to haul the loosened pieces ashore and beyond the reach of floods (ARCE 1870:348).

On July 5, 1884, an appropriation was made for "the removal of obstructions from the mouth up, the work to be done by the Government wrecking plant then on Bayou La Fourche" (ARCE 1885:1398). The wrecking plant was transferred to Bayou Teche in February 1885, where it spent the month of April removing the wreck of the *Chambers*. The *John M. Chambers* was a packet boat owned by Captain T. R. Muggah. In a letter to Major W. H. Heuer, First Lieutenant O. T. Crosby reported on the removal of the *Chambers*.

Sir: I have the honor to report as follows upon the progress made in removal of wreck *John M. Chambers* from Bayou Teche, Louisiana: The work was begun April 1. Two cypress trees which had lodged in the wreck, pieces of smoke-stack, two rudders, and other pieces loosened by a twenty-pound blast of powder, were removed before my arrival. On the 3d (Friday) I began breaking up the wreck with charges of Atlas powder, and continued this breaking up and removal until Saturday, April 11, when I returned to the city. Charges varying from 3 to 28 pounds were used in cartridges varying from 2 to 25 feet in length, and having from one to six fuzes in circuit ... (ARCE 1885:1428-1429).

Crosby reported that "two hundred pounds of 'Atlas A' and '105 pounds of Hercules No. 2' powder had been used," records suggest that a few more blasts were used to complete the effort. In addition to the removal of the *John M. Chambers*, Major Heuer reported that 338 snags, 97 sunken logs, and many overhanging trees were removed from above New Iberia and below Saint Martinville (ARCE 1885:1398).

On November 13, 1884, the government contracted Atlantic and Gulf Wrecking Company, of Somers Point, New Jersey to remove the steamships *Gresham* and *General Grant*, and the ship *Ailsa* (ARCE 1885:1428). Contracts continued to be awarded for the removal of wrecks from Bayou Teche, and for channel maintenance. C. A. Barbour of Franklin, Louisiana was awarded \$465 in 1904 for the removal of three coal barges. The wrecks were removed "by use of dynamite and block and tackle, the debris being disposed so as not to obstruct navigation" (ARCE 1905:1456).

Sunken coal barges were "constantly forming obstructions which . . . require removal" (ARCE 1892:1503). Records show that one coal boat was removed in March 1892, and that two others were recovered in May of 1893. Thirty-three wrecks, many of which were coal barges, were removed from the Teche in 1899 (ARCE 1892:1513; ARCE 1893:1839; ARCE 1900:2260). Additional unidentified wrecks were removed in 1894 and in 1896 (ARCE 1895:1763; ARCE 1897:1764). By 1901, the Teche was considered free of all major obstructions (ARCE 1901:1899).

In November 1907, an inspection of Bayou Teche identified "several obstructions to navigation by sunken barges, etc., which had apparently been abandoned by their owners." Notices in the newspapers *St. Mary Banner* (Franklin, La.) and the *Enterprise* (New Iberia, La.) warned owners of the wrecks that they

had thirty days to remove them or they would be broken up and removed by the U.S. Government. An assessment of the channel was completed shortly thereafter. The results of that survey were reported by Colonel Ruffner:

With the exception of snags, the channel is in a fairly good condition below New Iberia, but of late years it has shoaled considerably between New Iberia and St. Martinville, and is not navigable above the latter point. The improvement of channel accomplished will not be a permanent one, as sunken logs, fallen trees, and shoals are constantly forming obstructions which require removal (ARCE 1908:1480)

In January 1908, C. M. Guess, Jr. of New Iberia, Louisiana was awarded a contract to remove six wrecks. These wrecks included a floating barge near Calumet Plantation, a sunken barge at Puckett shipyard, a barge below Belleview Bridge, a steam launch near Sarah Bridge, a barge near Sarah Bridge and a hull near Franklin, La. The work was completed on March 5, 1908. Five of the wrecks were removed; the hull near Franklin, Louisiana could not be relocated (ARCE 1908:1483).

Guess, Jr. also was awarded an additional contract "for dredging through the bars in Bayou Teche below New Iberia, La." Under this contract a total distance of 10,895 feet was dredged to an average depth of 6 feet and to a width of 30 feet; approximately 34,435 cubic yards of material were removed during clearing (ARCE 1908:1480).

Efforts toward removal of obstructions, maintenance, and flood control have continued. For example, the Teche channel was dredged again in 1941. The East and West Calumet floodgates were constructed between February 1949, and September 1950. These floodgates provide access to the Wax Lake Outlet. In 1962, a total of 1.73 miles of the Bayou Teche were dredged between the East and West Calumet floodgate structure, and between the West Calumet floodgate and Shadyside Bridge.

From July 16 to September 5, 1964, efforts were made to restore a 2.5 x 24 m (8 x 80 foot) channel within the 3.3 mile section of the river extending from Calumet, La. to the vicinity of Luckland Plantation. Over 245,622 cubic yards of material were removed from the Teche (ARCE 1965:505-506). From January 11 to April 9, 1965, numerous snags resulting from Hurricane Hilda were removed from throughout Bayou Teche. In 1969, dredging was conducted near Rizzo bridge (Goodwin, Poplin et al. 1988:146). This dredging apparently disturbed the brick barges shown on Howell's 1870 survey of Bayou Teche presuming the barges had survived numerous earlier wreck removal projects (Goodwin, Poplin et al. 1988).

In addition to routine maintenance dredging, and to routine snag and obstruction removal, new construction has also impacted the area's cultural resources. Goodwin, Poplin et al. (1988:144-145) identified seven Federally sponsored projects which impacted the Bisland battlefield area. These projects include:

The excavation of Wax Lake Outlet (1937-1942);

The construction of the Wax Lake Outlet East and West Levees (1937-1942);

The construction of the East and West Flood Calumet Floodgates (1950);

The construction of West Atchafalaya Basin Protection Levee Item (WABPL) W-106;

The construction of WABPL Item W-112;

The construction of interior drainage works west of Berwick, La.; and,

The dredging of Bayou Teche (1940-1941).

Probable damage to the battlefield and surrounding area includes the deposition of dredgefill along the banks of the Wax Lake Outlet and Bayou Teche, which has impacted the area's terrestrial cultural resources. The area's submerged resources probably were damaged as a result of dredging and maintenance of the area's waterways. For a more detailed review of these impacts see Goodwin, Poplin et al. 1988.

Summary

Historically, Bayou Teche played an important role in transportation of goods and produce. Because of its importance, substantial amounts of time and money have been directed towards dredging and maintaining this waterway. Documentation reveals that numerous wrecks were removed during this ongoing process. Data also suggest that these wrecks either were removed entirely from the waterway, or were sufficiently destroyed that little, if any, evidence survives regarding their former structure or content. Data taken from survey notes taken during the 1870 survey of the Teche are included in Appendices I and II.

Wreck removal and maintenance dredging have played an important role in keeping the Teche open and free from obstructions. Unfortunately, these projects destroyed or severely impacted numerous cultural resources, including submerged schooners, steamers, packet boats, and barges, as well as portions of the Bisland Battlefield and other terrestrial sites.

CHAPTER III

PREVIOUS INVESTIGATIONS

Archeological investigations in the vicinity of the project area include those of McIntire (1958), Neuman (1973, 1977), Gibson (1975), Coastal Environments, Inc. (Gagliano et al. 1975), Neuman and Servello (1976), Gibson (1982), and R. Christopher Goodwin & Associates, Inc. (Goodwin et al. 1986, 1988, 1990). With the exception of the 1990 Goodwin study, the investigations have been reviewed previously (Goodwin, Hinks et al. 1990); only the results of the 1990 study are reviewed here.

During the spring of 1990, R. Christopher Goodwin & Associates, Inc. performed a cultural resources survey of Lower Bayou Teche, and portions of the Bisland Battlefield for the U.S. Army Corps of Engineers, New Orleans District (Contract DACW29-88-D-121). The investigations were designed to provide the New Orleans District with data outlining the potential impact of channel dredging and erosion on cultural resources in the project area.

The project consisted of two parts. The first part included an evaluation of the impact of channel dredging on cultural resources located within Lower Bayou Teche; during this effort, River Miles 0.0 to 5.0 were surveyed for submerged cultural resources. The second part of the project was designed to assess the impacts of prior construction of the Wax Lake Outlet and the W-112 Levee Item, and of subsequent erosion on the Bisland Battlefield.

The 1990 survey was conducted in three phases. These phases included background and historical research; fieldwork, including terrestrial and riverine survey; and, data analysis and report writing. The background and historical research included review of the geomorphological, archeological, and historical setting of the project area. These data were used to identify high probability areas for assessment during subsequent survey.

Fieldwork included a magnetometer survey within Lower Bayou Teche (River Miles 0.0 to 5.0), to identify submerged cultural resources that could be adversely impacted by the proposed dredging. In addition, a terrestrial survey was performed to identify cultural resources located within the proposed dredgefill disposal areas. Pedestrian survey and shovel and auger testing were performed throughout the latter areas. Metal detector and magnetometer surveys also were conducted within the limited portions of the project area falling within the area of the Bisland Battlefield.

An archeological assessment of the W-112 Levee Item also was performed. This assessment included systematic auger and shovel testing designed to assess the impact of construction and dredge disposal on the project area. In addition, metal detector and magnetometer surveys of the project area were performed in an attempt to identify cultural features pertaining to the Civil War period Battle of Bisland.

After completion of the preliminary archeological assessment, several terrestrial sites were identified for further archeological evaluation. This evaluation included the recordation of the horizontal and vertical extent of each site, and assessment of each site's research potential. A total of 415 acres and 5.0 river miles was surveyed for cultural resources. During survey, 62 underwater anomalies were identified; seven unrecorded terrestrial sites and one previously recorded site, the Bisland Battlefield (16SMY166), were identified and subsequently examined.

The newly recorded sites include the remains of two antebellum plantations (Bethel I, 16SMY68; and Bethel II, 16SMY69), and four postbellum and early twentieth century plantation sites (Moro Plantation, 16SMY73; Zenor, 16SMY72; Luckland Plantation, 16SMY71; and, Avalon Plantation, 16SMY70). One twentieth century site also was recorded (Calumet, 16SMY67).

Two of the seven terrestrial sites recorded within the project area possess the quality of significance as defined by National Register of Historic Places criteria. These sites are Avalon Plantation (16SMY70) and Luckland Plantation (16SMY71). Two sites (Moro Plantation and Bethel II) are thought to contain potentially significant cultural deposits; however, these deposits are located outside the planned project corridor. Three sites, (Zenor, Bethel I, and Calumet) do not possess the quality of significance as defined by National Register of Historic Places criteria. For a more detailed account of each evaluation, see Goodwin, Hinks et al. 1990.

The magnetometer survey of Lower Bayou Teche was designed to locate submerged cultural resources within the Bayou Teche channel. This survey was conducted from a 21 ft aluminum boat outfitted with a Geometrics 806 proton procession magnetometer and a Linseis analog recorder; a Loran-C receiver was used to record the location of each of the identified anomalies. Bathymetric data also were collected. Five transects were surveyed in the area below River Mile 3.6; three were placed in the area between River Miles 4.8 and 3.6 (Figures 3 - 5). Historic research designed to predict the locations of cultural features within the project area was performed prior to initiation of the riverine survey. This research identified a number of potential shipwreck locations within the project area. In addition, the locations of numerous bridges and landings were determined. This research resulted in the production of a list of wrecked vessels lost within the project area (Tables 2 and 3 in Goodwin, Hinks, et al. 1990).

The initial magnetometer survey of Lower Bayou Teche was conducted along transects spaced at intervals no greater than 30 m; in addition, multiple passes were performed at decreased transect intervals in areas where potentially significant magnetic anomalies were identified. The magnetometer was set so that background noise did not exceed ± 3 gammas; readings were recorded on a 100 gamma scale. When an anomaly was identified, its location, probable size, and shape were recorded. An anomaly was considered a potential shipwreck location if it produced a 10 gamma or greater inflection, and extended over an area of 15 m or more.

A total of 62 magnetic anomalies were identified during survey; however, only eight anomalies were thought to have a known historic association and/or to fall within the proposed dredge impact area. Anomalies recommended for further evaluation (Figures 6 and 7) were: Anomalies No. 8, 13, 24a, 29, 30, 31, 33, and 58 (Goodwin, Hinks et al. 1990). Magnetometer and fathometer data from each of these eight anomalies were contoured to produce plans of each of the anomaly locations. These anomalies are discussed in detail in Chapter V.

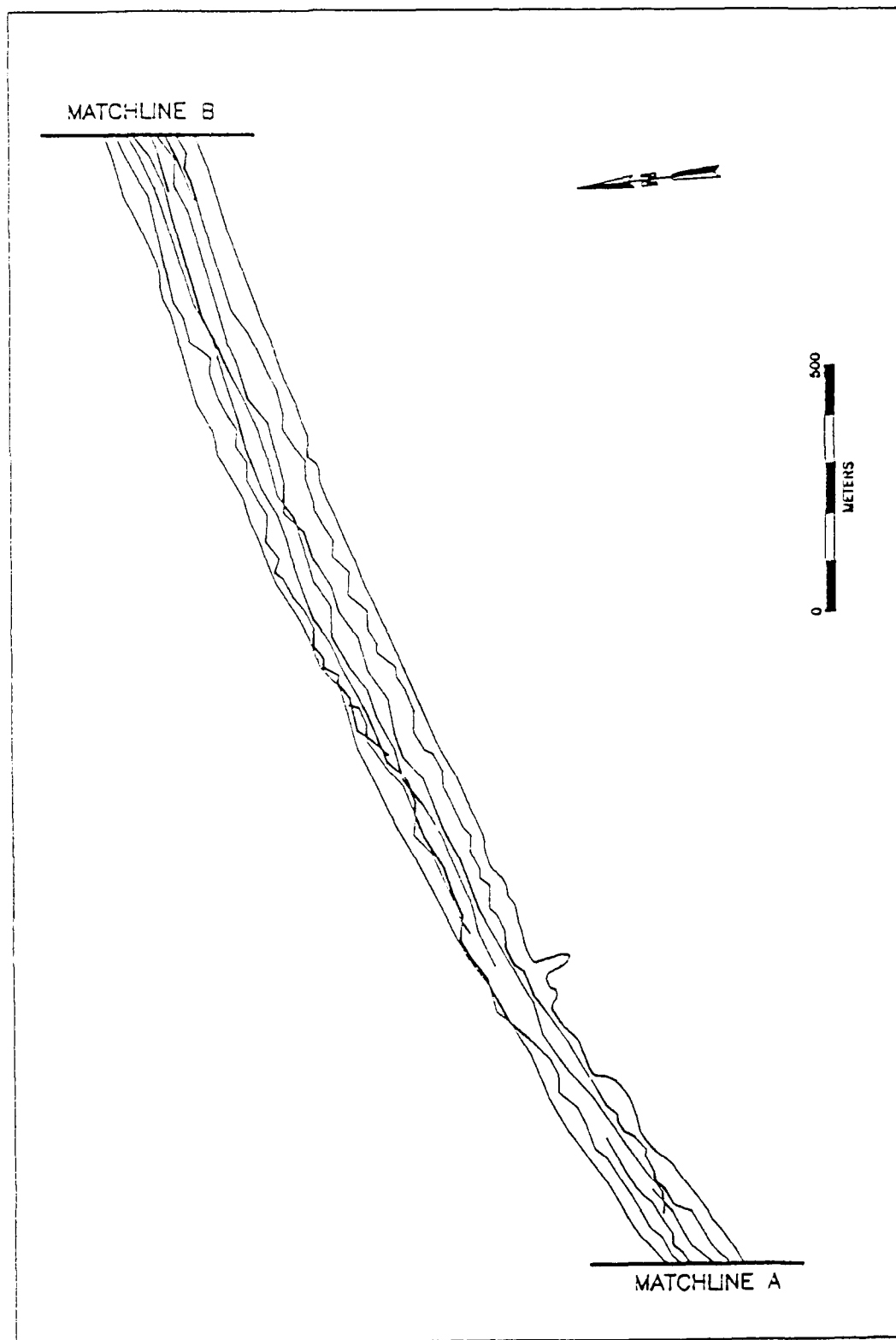


Figure 3. Post plots of the western third of the Bayou Teche riverine magnetometer survey

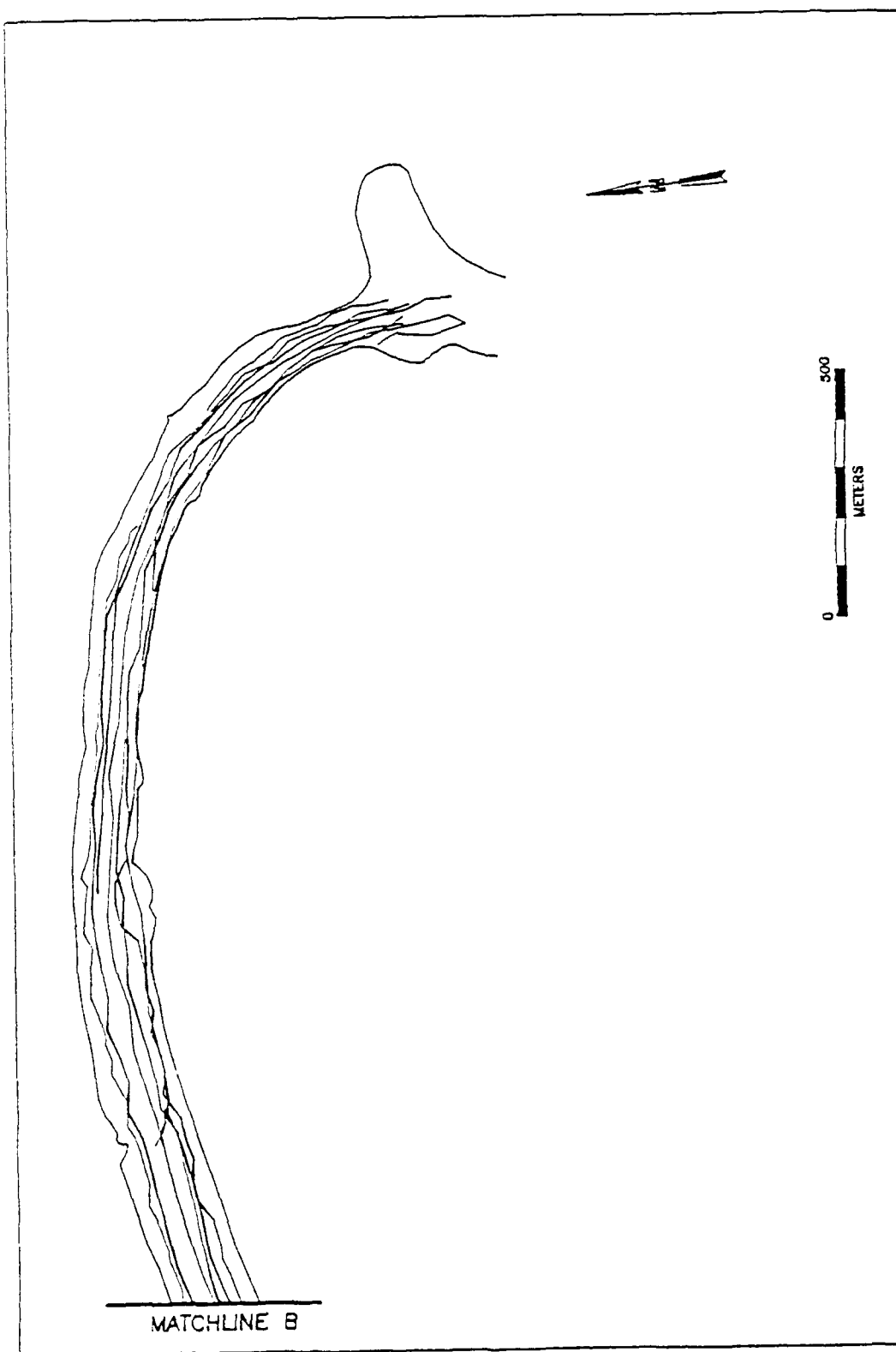


Figure 4. Post plots of the central third of the Bayou Teche riverine magnetometer survey

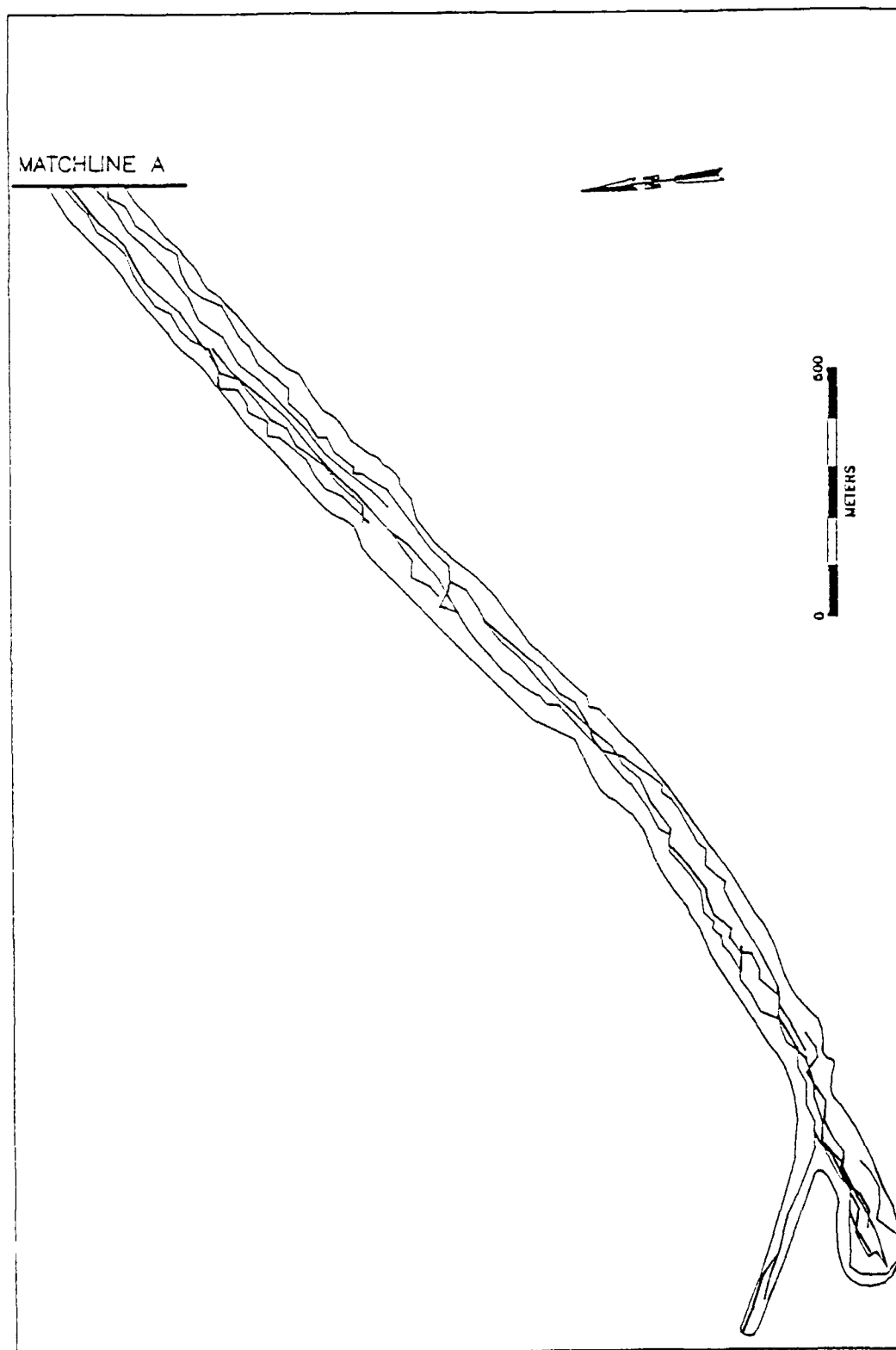


Figure 5. Post plots of the eastern third of the Bayou Teche riverine magnetometer survey

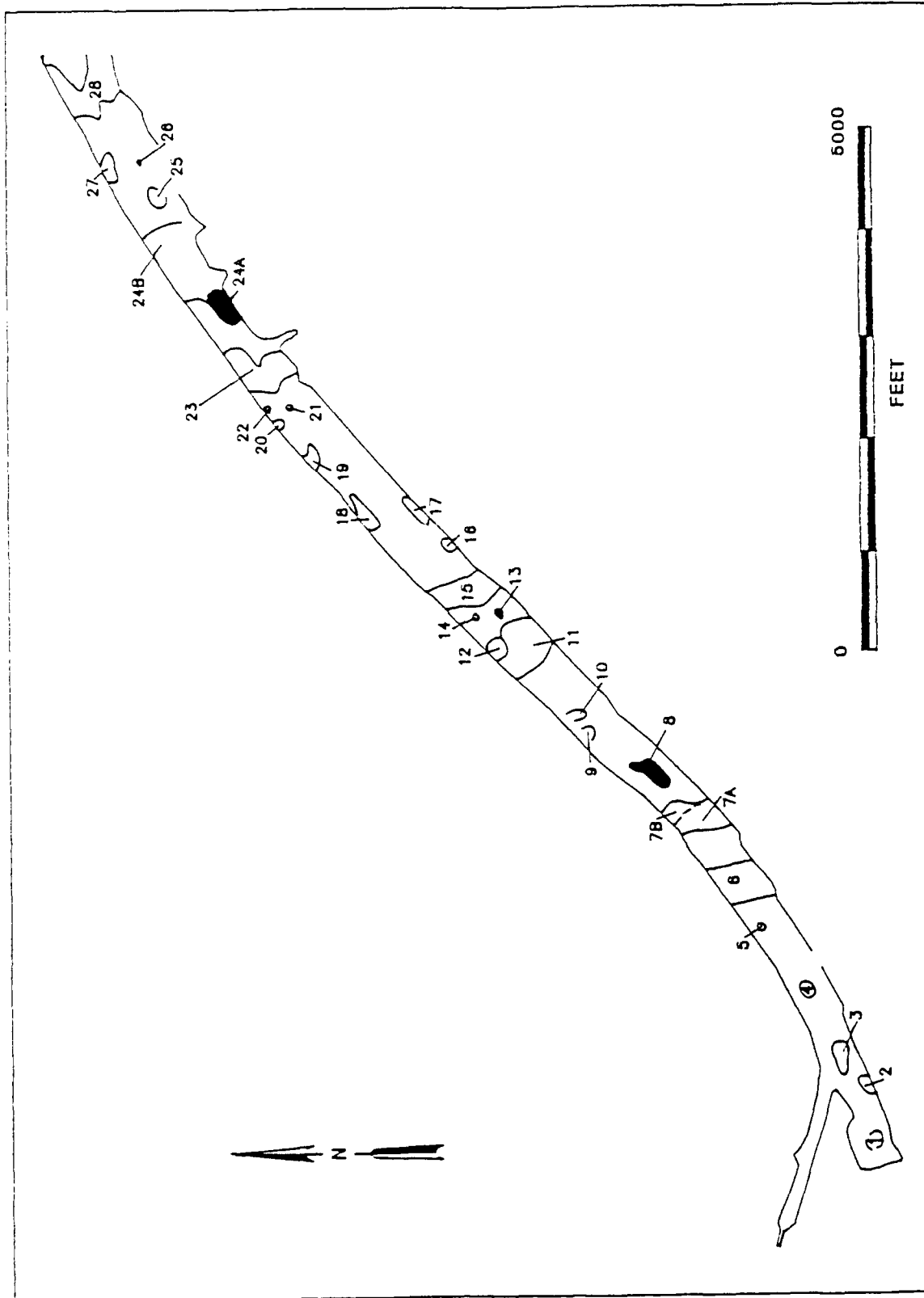


Figure 6. Riverine magnetic anomalies located in the west half of the project area. Anomalies recommended for additional investigation are shaded

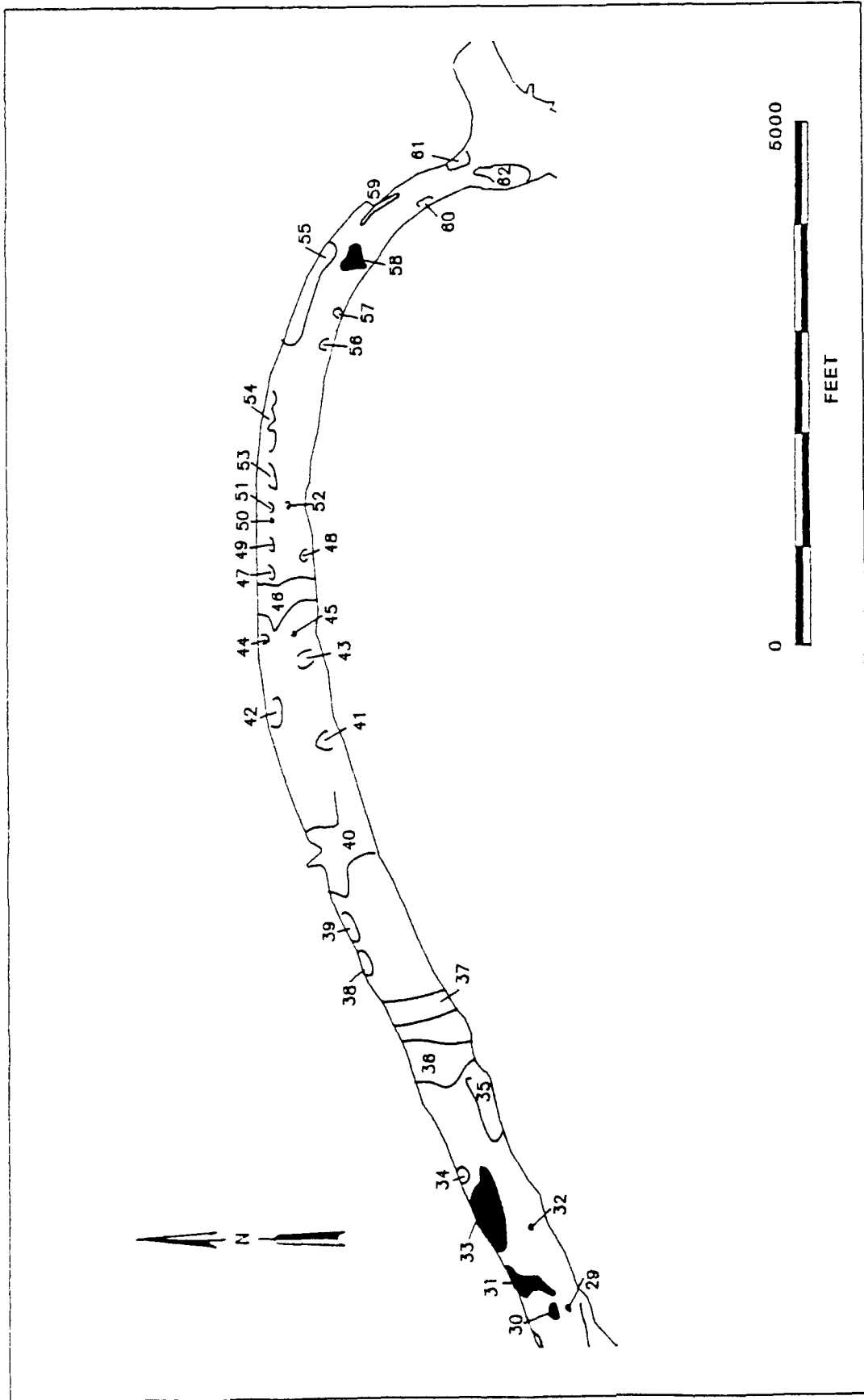


Figure 7. Riverine magnetic anomalies located in the east half of the project area. Anomalies recommended for additional investigation are shaded

CHAPTER IV

FIELD METHODOLOGY

This survey was designed to identify and describe the source of eight previously discovered magnetic anomalies situated within Lower Bayou Teche. Methods for relocating and assessing each of these anomalies include: (1) relocation of each anomaly with a magnetometer; (2) informal magnetic and fathometer survey of each anomaly and its vicinity; (3) physical search of the river bottom at each anomaly location; (4) use of a metal detector to assess the depth and location of each anomaly source; (5) probing of the river bottom to locate buried structure(s); and, (6) limited excavation with a jet probe to uncover the source(s) of each anomaly. These six procedures are reviewed below.

Relocation of Each Anomaly

An informal magnetic survey was conducted to relocate and to pinpoint the source of each of the eight anomalies. A Geometrics 856 proton precession magnetometer was used in the initial relocation. The magnetic sensor was mounted on an aluminum pole suspended in front of the 21 ft aluminum survey vessel. Magnetic survey was conducted along a series of closely spaced, parallel transects in order to relocate the approximate locus of each anomaly. Readings were taken at one second intervals; data pertaining to each anomaly's character, amplitude, and size were recorded. A buoy was thrown as each anomaly was encountered, marking the general search area for each of the magnetic sources. Two anomalies, Anomalies No. 30 and 58, were not relocated.

Informal Magnetic Survey

Once the general area of magnetic disturbance for each anomaly was identified, a second magnetic survey was used to pinpoint the magnetic source of each anomaly. A hand-held, directional magnetometer was used to survey the area marked by the buoy, and to delineate further the source of the anomaly. Magnetic survey was conducted along closely spaced transects around each previously placed buoy(s); additional buoys were used to mark the exact location of each investigation.

Physical Search and Probing of the River Bottom

A physical search of the river bottom was undertaken at each relocated anomaly location. This search consisted of transect survey by field personnel, in water less than 1.3 m (4 ft) deep. Probing with metal rods was conducted in .3 to .6 m (1 to 2 ft) intervals. In general, 1.5 to 2 m (5 - 6 ft) probes were used to assess the bottom conditions and to look for the source of each of the identified anomalies. Transects varied in length, but were of sufficient extent to cover the anomalies being assessed. The distance between transects varied; however, this interval never exceeded 3.3 m (10 ft).

Water depths varied at and within each anomaly location, as well as between anomalies; however, in each case efforts were made to probe to depths exceeding 3.3 m (10 ft) below water surface, i.e., 2 feet below proposed dredging levels. In some instances, this required extending an arm .3 to .6 m (1 to 2 ft) into the silty channel sediments. In areas too deep for wading, a diver performed a search of the river bottom and the requisite probing. Data pertaining to diver safety and gear are reviewed later in this chapter.

Metal Detector Survey

A hand-held magnetometer and/or an underwater metal detector were used to identify the source(s) of several of the anomalies. In shallow areas where wading was possible, a hand-held directional magnetometer was used. In such cases, a twelve foot flat-bottom boat containing an individual holding the magnetometer, was pushed along each transect until the source of the anomaly was identified.

In areas where wading was not possible, an underwater metal detector was used to locate the source of the anomalies. These surveys generally were performed in conjunction with or after probing and after a physical search of the river bottom had been performed. Once recovered object(s) were removed, the area was checked using either of the two instruments. These methods assured that the material removed from the bottom and slope of the Bayou Teche channel did indeed reflect the source of the magnetic anomaly.

Limited Excavation with a Jet Probe

When potential anomaly sources were identified within the Bayou Teche, they most frequently were buried beneath 0 to 1 m (0 to 3 ft) of silty clay deposits. Such instances required limited excavation to recover the source of the anomaly. This recovery was accomplished through the use of a jet probe constructed for this process.

The jet probe consisted of a pump, an intake and discharge hose, and the probe itself. The probe was constructed of 3/4 inch inside diameter (I.D.) PVC pipe. The 3 hp pump had a 2 inch discharge. The discharge was restricted by a 1 inch to 2 inch swage fitting and fed through a 1 inch I.D. hose. The hose was connected to the PVC jet probe with a 3/4 inch to 1 inch reducer. The jet probe produced a discharge of sufficient force to blow away the channel sediments. The jet probe was used to uncover a variety of objects, including metal poles, clay pigeons, and modern debris.

Underwater Investigation and Channel Conditions

In cases where water depth exceeded 1.6 m (4 ft), a diver was used to investigate the anomaly. The dive team consisted of the principal diver, a diver, a tender, and a dive supervisor.

A surface-supplied air system was used during the diving. An EMGLO compressor delivering 125 PSI, with an 8-gallon reserve air-tank capacity, was used to supply air to the diver. A Carbo-Morgan band mask outfitted with surface radio/intercom communications also was used by the diver. Air supply was maintained through a Gates 3/8 inch air hose.

While underwater, the principal diver was in constant communication with the dive team above. Information pertaining to the diver's safety, channel conditions, and visibility was exchanged continuously. Visibility fluctuated between 6 and 16 inches; the bottom was relatively free of surficial debris, i.e., boards, trees, logs, and branches.

In cross section, the bayou resembled a shallow basin incised by a narrow channel. The channel bottom was firm, and easily supported the diver's weight. However, the silt was fine enough to be easily investigated by hand or by probe. Bottom materials became softer as one moved up the slope of the channel. Outside the channel, the diver would sink up to his knees in the silty bayou deposits. A great deal of vegetative growth also was observed in these shallower areas.

CHAPTER V

ANOMALY RELOCATION AND TESTING RESULTS

This project was designed to provide evaluatory data on eight previously recorded magnetic anomalies located within Lower Bayou Teche. Anomalies No. 8, 13, 24a, 29, 30, 31, 33, and 58 were assessed. The sources of two of the anomalies, Anomalies No. 30 and 58, could not be located. Because of each anomaly's close proximity to one that was being investigated, and since each was relocated during the re-survey of the anomalies researched under this delivery order, an effort was made to briefly investigate Anomaly Nos. 23, 24b, and 55. The procedures used in assessing each anomaly, as well as the results of testing, are discussed below. In addition, a brief summation of the results of the previous survey is presented. For additional data pertaining to each of these anomalies, please see Goodwin, Hinks et al. 1990.

Anomaly No. 8

Anomaly No. 8 originally was identified as a complex, dipolar anomaly located at River Mile 3.90 (Figure 8). As originally mapped, this anomaly measured 46 x 122 m (150 x 400 ft); it produced a magnetic inflection of 140 gammas. Bottom depth at the time of the original survey was 1.5 to 2.4 m (5 to 8 ft).

Anomaly No. 8 coincided well with the documented location of the *Fly Catcher*, a screw-propeller driven steamer, and with a sunken brick barge. Although these wrecks apparently were removed by the U.S. Army Corps of Engineers in 1871, it was felt that this anomaly could represent portions of those derelicts. Anomaly No. 8 was relocated and redefined during the current survey. Magnetic survey using tighter lane spacing revealed an anomaly with an 18.3 m (60 ft) diameter. The anomaly was dipolar and produced an inflection of 122 gammas. Water depth at the time of survey was .3 to .6 m (1 to 2 ft) at the edge of the channel.

Once the anomaly was relocated and redefined, survey was conducted to identify the source of the magnetic readings. A metal detector survey of the immediate area was performed. In addition, water probing with a jet probe was performed at one to three foot intervals. Lane spacing varied from eight to ten feet. Probing covered an area approximately 15 x 30 m (50 x 100 ft) in size; probing was conducted to depths of 10 ft below water surface.

All survey activities produced negative results. Stacks of 55-gallon drums were noted along the shore. In addition, metal debris was observed scattered along the bank and along a nearby seawall. At the time of survey, the drums and debris were obscured by high water and by a tethered houseboat. Additional investigation at this anomaly produced negative results. The anomaly either was related to the aforementioned debris, it was too small to be picked up during probing, or it is located below the dredge impact zone. Anomaly No. 8 does not appear to be the remains of a submerged cultural resource; rather, it probably represents modern metallic debris.

Anomaly No. 13

Anomaly No. 13 previously was identified as a dipolar anomaly; it measured 15 x 34 m (50 x 110 ft), and it was situated near River Mile 3.50. This anomaly was originally thought to represent debris lost during the removal of the *Fly Catcher*; alternatively, the debris could have been associated with three brick barges.

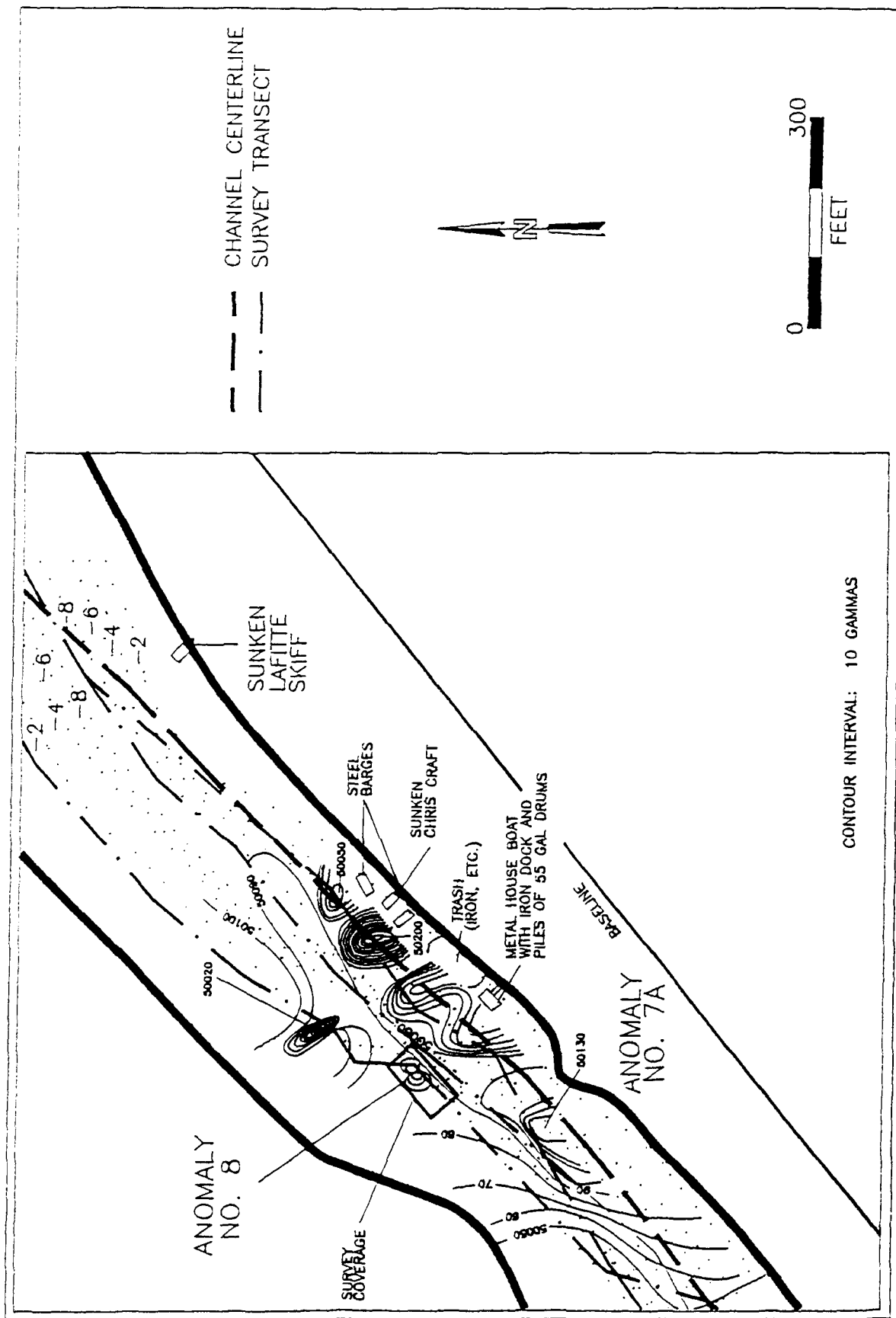


Figure 8. Map showing excerpt of survey coverage and identified sources, for Anomaly No. 8

Anomaly No. 13 was relocated and redefined as a 23 to 30 diameter dipolar anomaly; with a magnetic amplitude of 56 gammas. Underwater investigations at the site of this anomaly produced a wire crab trap and evidence of dragline activity. A physical search of the river bottom and extensive probing failed to locate any other remains (Figure 9). Water depths varied from 1.5 to 2.4 m (5 to 8 ft); probing depths exceeded 3 m (10 ft) in depth.

Anomaly No. 23/24 Complex (16SMY76)

Anomaly No. 24a originally was identified as a dipolar anomaly located near River Mile 2.75, along the right bank of Bayou Teche. The anomaly measured approximately 46 x 168 m (150 x 155 ft) and was situated near a modern shipyard and dock facility. Bottom depth at the time of the original survey varied from 0.6 to 2.4 m (2 to 8 ft).

Anomaly No. 24a had a variety of possible historical associations. Trinidad (1868) placed the schooner *Alligator* near this position. Cornay's Bridge, a landing, as well as a caisson lost during the Civil War, also appear to coincide with this location.

Anomalies No. 23 and 24a were relocated and redefined during the current survey (Figure 10). Because of their proximity to and association with the remains of a disassembled bridge, both anomalies were treated as a complex. Magnetic survey using tighter lane spacing revealed an anomaly confined to a 122 x 137 m (400 x 450 ft) area. This area corresponds to the previously defined Anomaly Nos. 23 and 24a. The Anomaly No. 23/24 Complex (Site 16SMY76) represents a complex dipolar anomaly that produced an inflection of approximately 2100 gammas. Water depth at the time of survey varied from 0 to 1.8 m (0 to 6 ft).

Anomaly No. 24a is located across the bayou from the remnants of an historic bridge; remains from that bridge also were observed along the right bank. In addition, several timbers were located in the bayou, in line with the bridge alignment, during the probing and physical search of the river bottom. One timber was anchored to the bottom and floats up and down with the level of the river. Another was encountered during probing. Probing was conducted to depths exceeding 10 ft below water surface; landing materials, brick, small boards, shell, and other debris were encountered within the channel fill, at a depth of approximately three feet, and in association with the ruined remains of the bridge or other structures. Also encountered near the right bank was a 3 in diameter iron pipe.

Anomaly No. 23 also was investigated. Two barge-like structures were identified within the area of the anomaly. Probing with the water jet suggested that the first structure measured 9 x 37 m (30 x 122 ft). The second structure was 9 m (30 ft) wide; its length could not be determined (Figure 10). The first structure was oriented parallel to the bankline. Probing revealed evidence of a wooden structure approximately 1.5 m (5 ft) below water surface next to the bank. The structure was encountered at 3.4 m (11 ft) below water surface near the channel.

The second structure was oriented perpendicular to the bank. Probing to depths exceeding 3 m (10 ft) failed to produce any evidence of the structure. If the structure extends into the current channel, it lies in depths far deeper than the impact of the proposed dredging.

In addition to the two barge-like structures, several square pilings and several isolated boards were encountered. An isolated magnetic focus identified during previous survey was relocated; it consisted of a jumbled mass of wires and electronic tubes, possibly from a radio or television set.

The Anomaly No. 23/24 Complex is an archeological site (16SMY76). It consists of the remains of three possible structures. Two of these appear to be the remains of barges; the third appears to be the

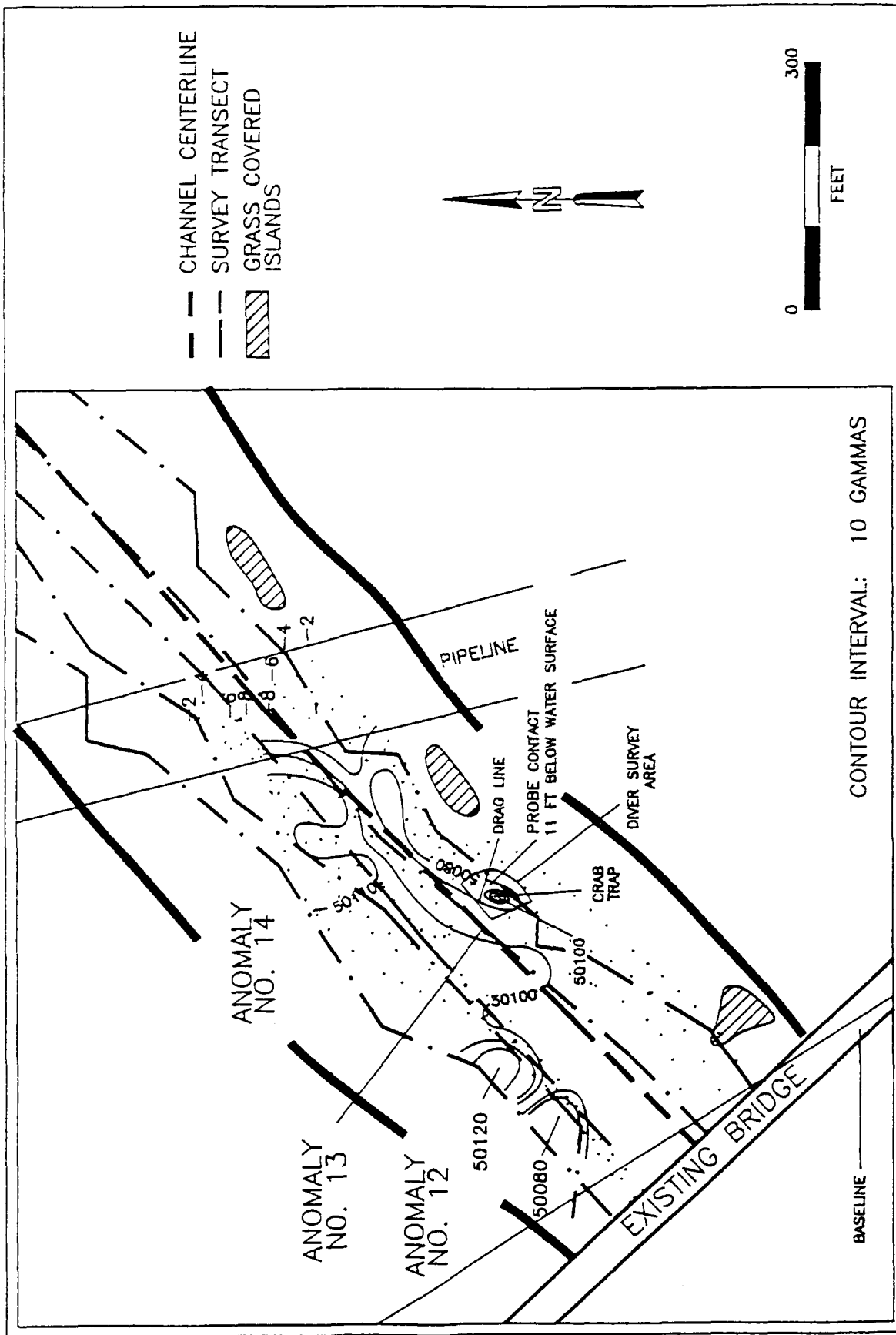


Figure 9. Map showing excerpt of survey coverage and identified sources, for Anomaly No. 13

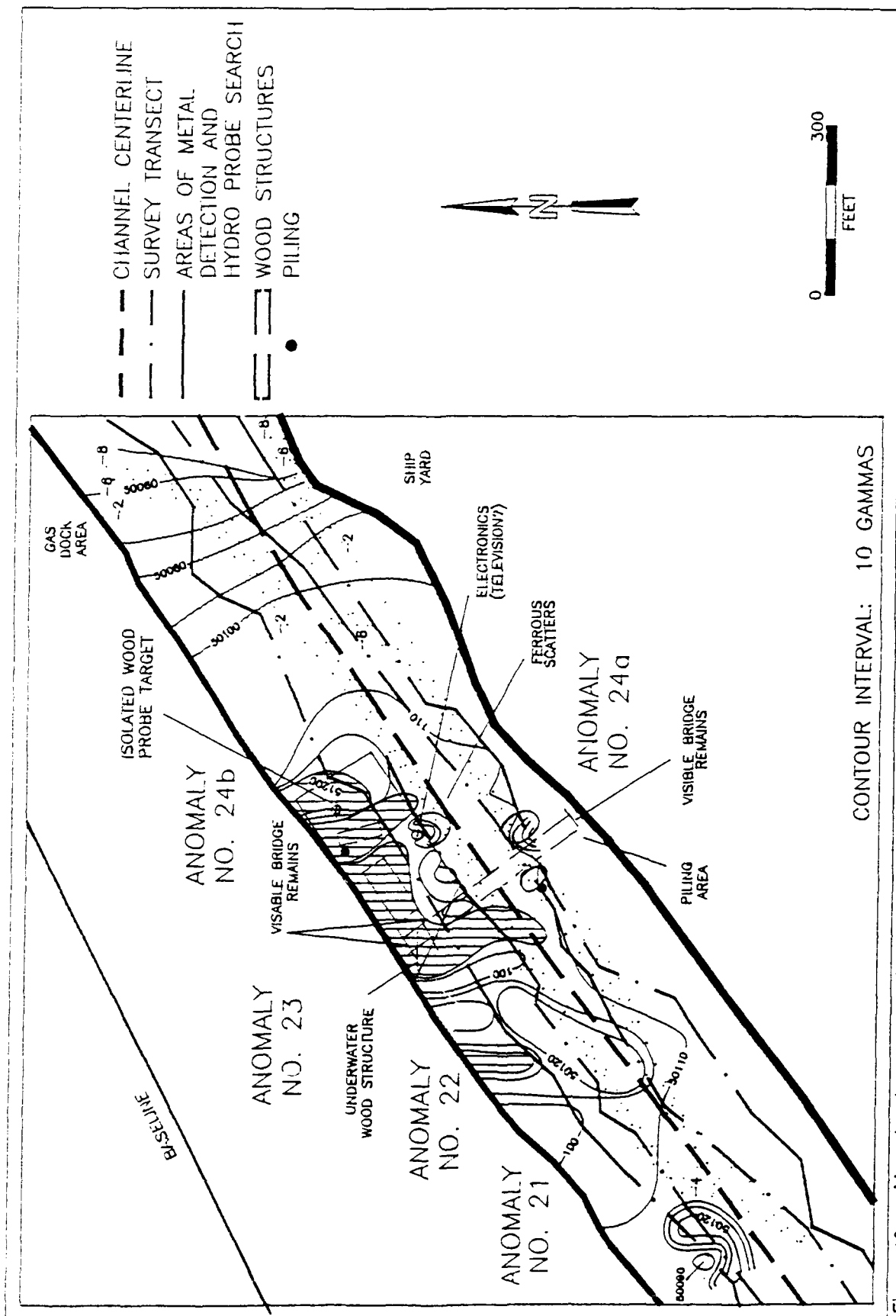


Figure 10. Map showing excerpt of survey coverage and identified sources, for Anomaly No. 23/24 Complex

remains of a recent bridge or landing, and scattered debris. If portions of these anomalies extend into the project area, they are at depths exceeding 3 m.

Anomaly No. 29

Anomaly No. 29 previously was identified as a dipolar anomaly at River Mile 2.18. It was thought to represent the remains of a dock or landing facility, or possibly the remains of the *Muddigger* or another vessel. The anomaly as originally defined was approximately 18.3 m (60 ft) long; shallow water prevented a determination of anomaly width. Bottom depth at the time of original survey was 0 to .6 m (0 to 2 ft). The anomaly was situated in close proximity (46 m) to pilings located on the left bank of Bayou Teche, and also to Anomaly No. 28.

Anomaly No. 29 was relocated and its size was redefined. Current investigations produced magnetics in an area measuring 91.4 x 152.4 m (300 x 500 ft). The anomaly appears to be dipolar and produced an inflection of approximately 70 gammas. Water depth varied from 0 to 1.2 m (0 to 4 ft) at the time of survey.

A metal detector survey and a physical search of the river bottom were conducted to identify the source of the magnetics. During testing, two metal poles were recovered; these may represent a lost or abandoned trotline. A third pole was located near an existing dock. Between the dock and this pipe is a filled-in boat canal. Within the filled-in portion of the canal, coal, tin can fragments, shell, and a rib from a cow were uncovered (Figure 11).

In addition to the metal poles, testing uncovered an isolated 12 ft long, 4 x 6 inch timber, and six clay pigeons. Downstream from this area a boat channel was excavated. Basketball-size clay clods were encountered across the bottom of the channel within this area.

Anomaly No. 29 represents the remains of a twentieth century landing or dock. Refuse found within the area is modern and was recovered in association with recent channel excavation. No historic or in situ deposits were identified.

Anomaly No. 30

Anomaly No. 30 originally was defined as a collection of dispersed ferrous materials. Preliminary data suggested that the magnetics covered a 15 x 46 m (50 x 150 ft) area. Bottom depth at the time of survey ranged from 0.6 to 2.4 m (2 to 8 ft). Preliminary data suggested that the anomaly was located on the slope of the existing channel (Figure 11) and could represent the remains of a former landing or the schooner *John Bowles*. The anomaly was dipolar in configuration.

Anomaly No. 30 was relocated and redefined. It measured approximately 38 m (125 ft) in diameter, and produced an inflection of 71 gammas. Water depth at the time of survey ranged from 6 to 10 feet. A physical search of the river bottom, and probing to depths of 11 to 15 ft below water surface, failed to produce a source for this magnetic anomaly. Probing was conducted along transects spaced less than 3 m (10 ft) apart; probing was conducted at one to two foot intervals along each transect. Either Anomaly No. 30 represents small isolated objects scattered along the river bottom, or the source of the anomaly is deeply buried and therefore would not be impacted by the proposed dredging.

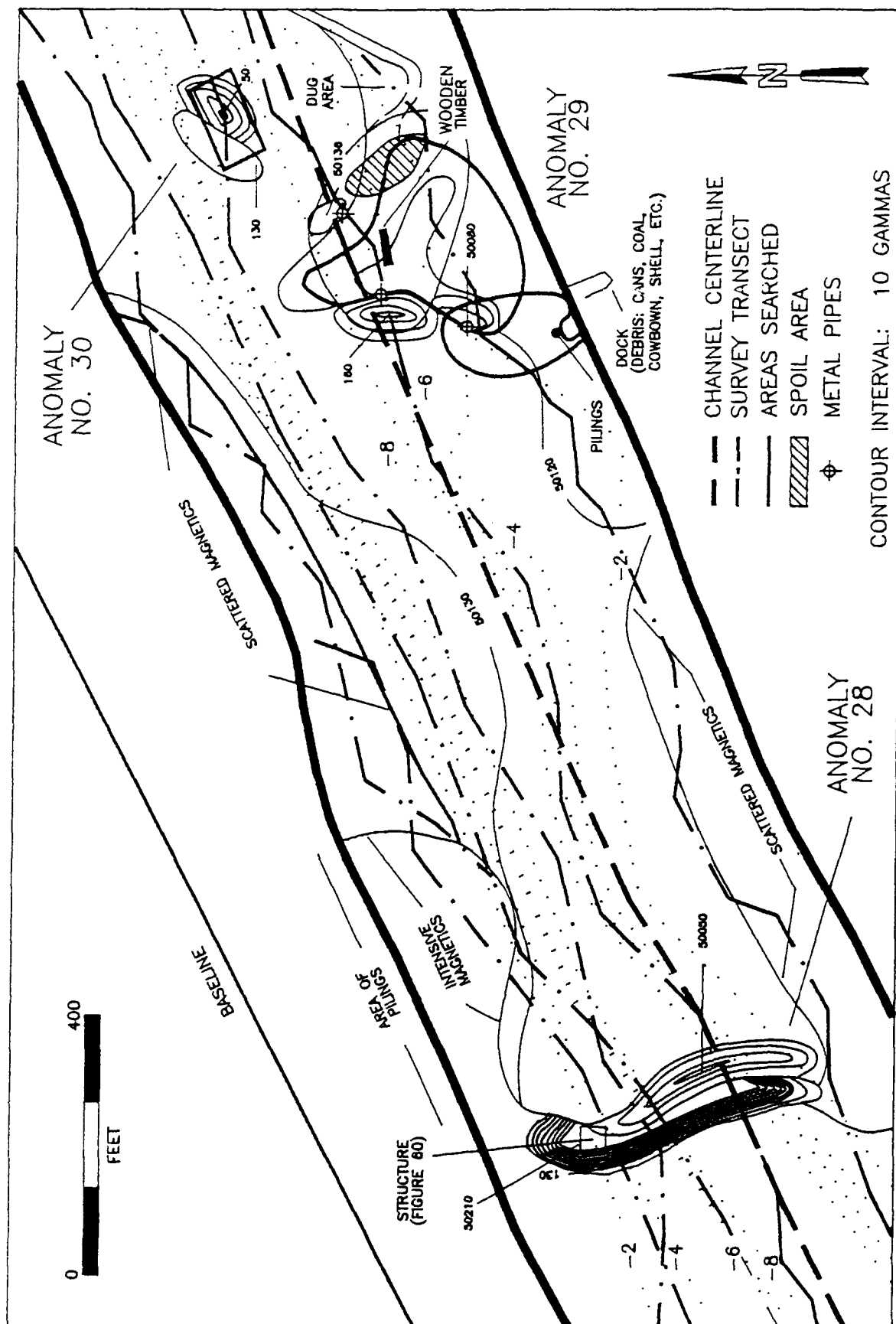


Figure 11. Map showing excerpt of survey coverage and identified sources, for Anomaly Nos. 29 and 30

Anomaly No. 31

Anomaly No. 31 originally was defined as a complex dipolar anomaly. It was located near River Mile 2.14 and produced a magnetic signature extending from the channel of the bayou to the left descending bank for a distance of 122 m (400 ft). The location of Anomaly No. 31 was associated with the site of an historic landing.

A metal detector survey, a physical search of the river bottom, and probing at the locus of Anomaly No. 31, produced two metal objects. The first object measured 45.7 cm (18 in) long and 3.2 cm (1.25 in) in diameter; it appears to be a metal gear pin or crankshaft from a boat. An 8 ft section of 3/4 in galvanized pipe with a pipe union at one end also was recovered from the area of Anomaly No. 31 (Figure 12). These objects appear to account for the magnetics identified as Anomaly No. 31.

Anomaly No. 33

Anomaly No. 33 originally was defined as a complex dipolar anomaly situated near River Mile 2.0. It measured 46 x 168 m (150 x 550 ft), and produced a magnetic inflection of 165 gammas. The anomaly's location correlated well with the predicted location of the Schooner *John Bowles*, and with an historic landing.

Anomaly No. 33 was relocated and examined to identify the source of the anomaly (Figure 12). The anomaly produced an inflection of approximately 370 gammas and measured 30 x 104 m (100 x 340 ft); water depth ranged from .6 to 2.7 m (2 to 9 ft). A metal detector survey, a physical search of the river bottom, and probing to depths ranging from 10 to 15 ft below water surface were performed. Probing conducted along transects no greater than 3 m (10 ft) apart produced evidence of structure at one locale. This structure appeared to be wood, although additional probing in the area failed to produce any additional remains. The "timber" is positioned vertically and lies at approximately 12 ft below water surface. While the wood could represent the remains of an historic shipwreck, it is just as likely that this timber is nothing more than a large log imbedded in the channel bottom.

Anomaly No. 58

Anomaly No. 58 previously was defined as a monopolar anomaly measuring 76 x 79 m (250 x 260 ft). This anomaly was located near River Mile 0.31. Anomaly No. 58 originally produced an inflection of 58 gammas; it was located in .6 to 2.4 m (2 to 8 ft) of water.

The site of Anomaly No. 58 was revisited and an attempt was made to relocate the anomaly. Numerous transect runs with a magnetometer failed to relocate the anomaly. Several small anomalies were located, but none produced magnetic readings exceeding 21 gammas in amplitude. Channel depth in this location exceeded 3.2 m (10.5 ft).

The original cause of the anomaly may have been a since-removed trot line, or an error in interpreting the data. During the original survey, problems encountered with the Loran-C positioning system caused the area to be surveyed twice. It is possible that these problems may have artificially created this anomaly.

Because of its proximity to Anomaly No. 58, time was taken to investigate a portion of Anomaly No. 55. This anomaly originally produced a magnetic inflection of only 30 gammas. At the time of the current survey, however, readings approached amplitudes of 210 gammas. A decision was made to investigate the portion of the anomaly lying near the channel (Figure 13).

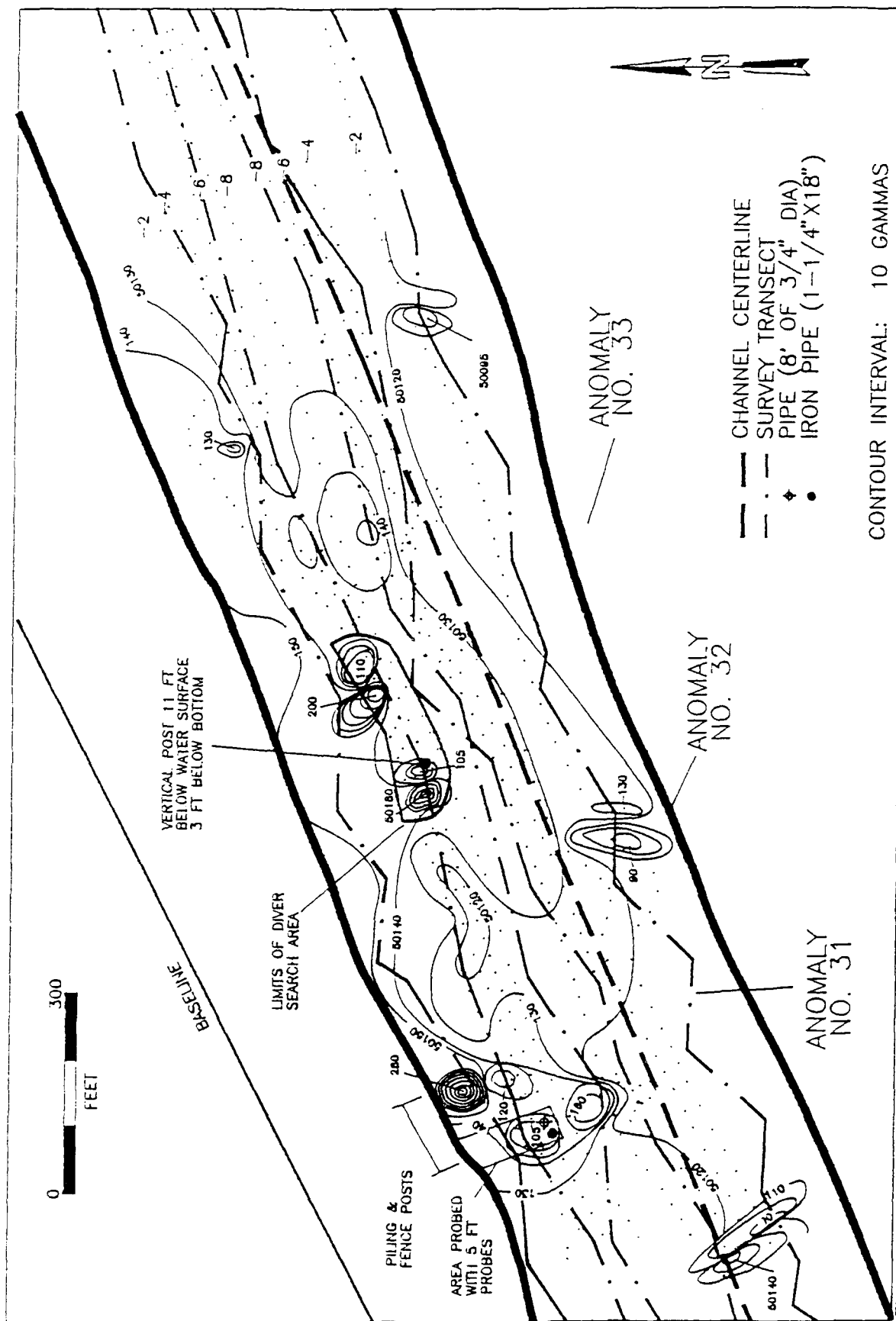


Figure 12. Map showing excerpt of survey coverage and identified sources, for Anomaly Nos. 31 and 33

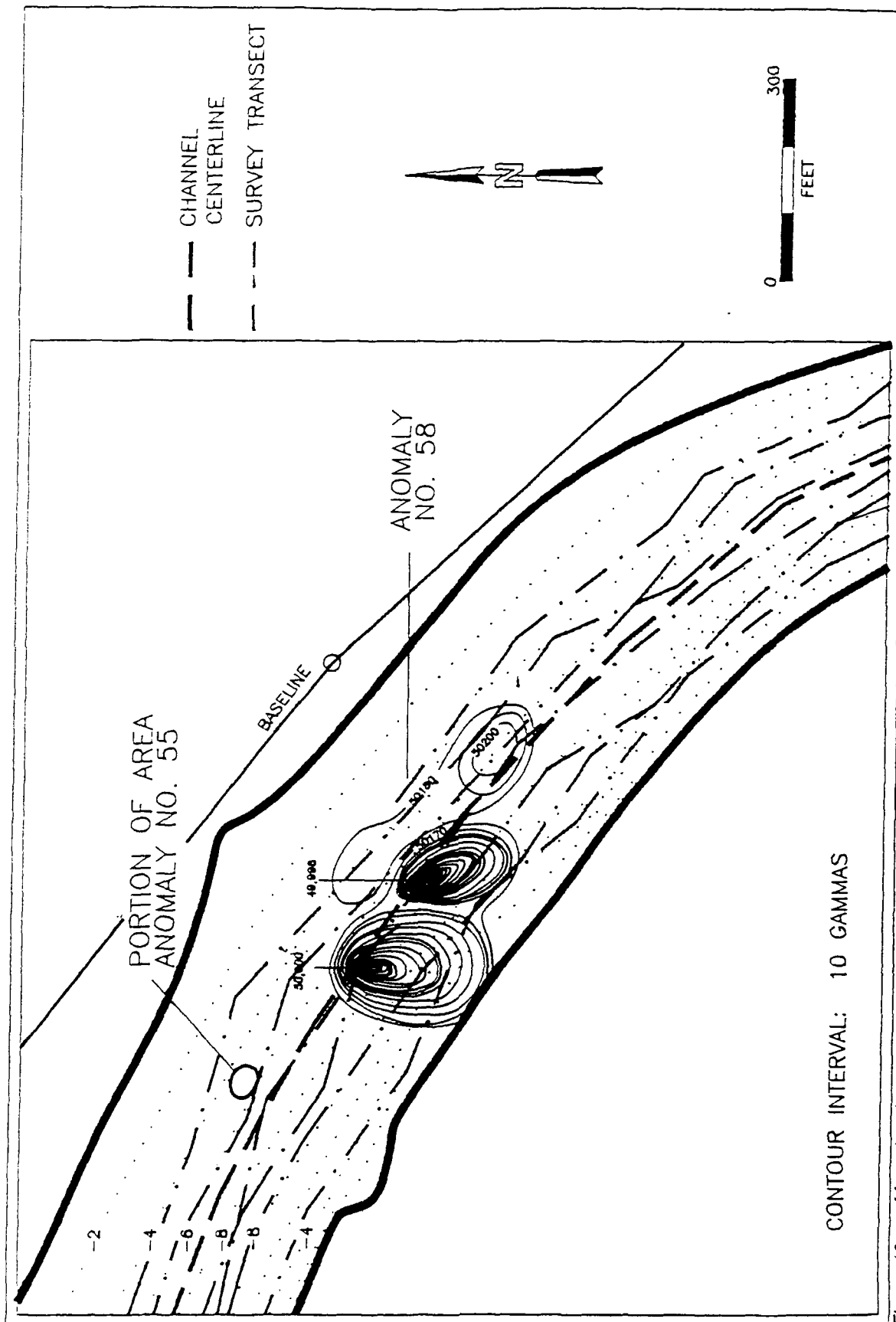


Figure 13. Map showing excerpt of survey coverage and identified sources, for Anomaly No. 58

Probing along the bottom of the channel produced structure at a depth of 14 ft below water surface; bottom depth at this locus was 3.4 m (11 ft). The limited amount of structure identified at Anomaly No. 55 occurs well below projected dredging levels; therefore, Anomaly No. 55 should not be impacted by proposed construction.

CHAPTER VI

SUMMARY AND RECOMMENDATIONS

Introduction

A previously conducted remote sensing survey of approximately 5.0 river miles of Lower Bayou Teche resulted in the identification of 62 underwater magnetic anomalies (Goodwin, Hinks et al. 1990). Maintenance dredging by the U.S. Army Corps of Engineers, New Orleans District, will remove shoal material from the previously excavated navigation channel; this dredging may impact several of the anomalies examined under this delivery order. Each of the 62 anomalies was evaluated previously with regard to location and to correlation with historic events, structures, or documented shipwrecks; with respect to size and intensity of the anomaly; and with respect to the potential for impact resulting from the proposed dredging. A total of eight magnetic anomalies were recommended for additional testing. This chapter presents assessments of and recommendations for treatment of each of the eight anomalies evaluated.

Each of the eight previously identified underwater magnetic anomalies was evaluated against National Register of Historic Places criteria. Fieldwork consisted of: relocation of each magnetic anomaly location; magnetic and fathometer survey to identify the extent of each anomaly; physical search of the river bottom by probing and/or using a metal detector or magnetometer to pinpoint and to determine the source of each anomaly; and finally, limited excavation with a jet probe to assess the nature and integrity of each anomaly. The previously identified underwater anomalies evaluated here include Anomaly Nos. 8, 13, 24a, 29, 30, 31, 33, and 58.

Recommendations

Anomaly No. 8

Anomaly No. 8 originally was defined as a complex dipolar anomaly located near River Mile 3.90. The anomaly measured 46 x 122 m (150 x 400 ft); it appeared to be associated with the remains of the *Fly Catcher* or a sunken barge.

A re-examination of Anomaly No. 8 indicates that it probably derives from stacks of 55-gallon drums stored along the shore. These drums, as well as metal debris scattered along the bank and around a nearby house represent the source of the anomaly; the shoreline was obscured by a tethered houseboat and by high water at the time of the initial survey. Probing and hand examination of the river bottom failed to reveal any additional sources of the magnetics. These results demonstrate that Anomaly No. 8 is not an archeological site. Rather, it represents modern metallic debris. No further work at Anomaly No. 8 is warranted.

Anomaly No. 13

Anomaly No. 13 was located near River Mile 3.50. As originally defined, the dipolar anomaly measured 15 x 34 m (50 x 110 ft). Its location coincided approximately with the documented location of the *Fly Catcher* or three brick barges. It was thought that Anomaly No. 13 may represent debris lost during removal of these derelicts.

Underwater investigations at the location of Anomaly No. 13 produced a crab trap. Physical search of the river bottom and extensive probing failed to note any other metallic debris. However, extensive

disturbances attributable to drag line activity were noted. Probing at this anomaly varied from 10 to 13 ft below water surface. Anomaly No. 13 is not an archeological site; it represents the remains of a wire crab trap and modern drag line activity. No further work at Anomaly No. 13 is recommended.

Anomaly No. 23/24a (16SMY76)

Anomaly No. 24a was located at River Mile 2.75. This dipolar anomaly measured approximately 46 x 168 m (150 x 555 ft); it was located along the right bank of the Lower Bayou Teche, near a shipyard and dock facility. This anomaly was thought to represent the remains of a landing; it is part of the Anomaly 23/24 Complex (16SMY76) that stretches along both banks of the Teche.

Probing and physical search of the river bottom revealed structure at three locations within the Anomaly 23/24 Complex (16SMY76). Along the right bank and near the location of Anomaly No. 24a, two structures were encountered. These appear to be attributable to a 3 inch diameter iron pipe and to wooden structural remains. The debris probably represents the remains of a bridge or former landing. Scattered brick also was noted in the area. Probing in the area exceeded 10 ft below water surface.

Along the left descending bank of Bayou Teche, two wooden structures and modern debris (an electronics set and a metal drum) were encountered downstream from the remains of a previously removed bridge. The first structure appears to be the remains of a barge measuring approximately 30 x 122 ft, oriented parallel to the bankline. Probing revealed evidence of wooden structure at 5 ft below water surface next to the bank. Near the channel, this structure was encountered at 11 ft below surface.

The second structure was oriented perpendicular to the bank. It also measured 30 ft wide; it is of unknown length. Probing to a depth of 10 ft near the channel failed to produce any evidence of structure. If the structure falls within the project right-of-way, it is beneath the impact zone and will not be affected by the proposed project.

The Anomaly 23/24 Complex (16SMY76) is an archeological site comprising remains of three possible structures. Two of these may represent the remains of barges. The other structure may be related to debris from a previously destroyed bridge or landing. The site is located outside of the area of direct impact for the planned dredging project. If portions of the anomalies extend into the proposed project area, dredging will have no effect. No additional work at the Anomaly No. 23/24 Complex (16SMY76) is recommended at this time. However, this site may possess the quality of significance as defined by National Register of Historic Places criteria (36 CFR 60.4). If construction designs change, and result in impacts to shallower portions of the anomaly, a determination of eligibility should be made prior to project implementation.

Anomaly No. 29

Anomaly No. 29 was defined previously as a dipolar anomaly located near River Mile 2.18. It was recorded approximately 46 m (150 ft) from pilings noted on the left descending band of Bayou Teche. It was thought to represent the remains of a dock facility.

A physical search of the river bottom at this location produced two metal poles, possibly from a lost or abandoned trotline. A third pole also was located near an existing dock. Numerous clay pigeons, fragments of shell, coal, metal cans, a cow rib, and other modern debris, were encountered during these investigations. The material was noted, but not collected. Near the projected center of the anomaly, evidence of dredging was encountered. Dredgefill in the form of large clay clods was observed across the bayou bottom.

Anomaly No. 29 is not a cultural resource; it consists entirely of modern debris. It also is located outside of the current channel. Further evaluation of Anomaly No. 29 is not warranted.

Anomaly No. 30

Anomaly No. 30 was located near River Mile 2.18. It measured 15 x 46 m (50 x 150 ft). Preliminary investigation suggested that Anomaly No. 30 could represent the remains of dispersed ferrous materials.

A physical search of the river bottom, and probing to a depth of 12 ft below water surface, failed to produce a source for this magnetic anomaly. Anomaly No. 30 is not a cultural resource; additional investigation of this anomaly is not warranted.

Anomaly No. 31

Anomaly No. 31 was located near River Mile 2.14. It measured approximately 122 m (400 ft) in length, and was complex and dipolar in configuration. Pilings also were noted in this area. Previous research documented this area as a potential shipwreck location.

A physical search of the river bottom produced an 46 m (18 inch) long, 3 m (1.25 inch) diameter metal gear pin, possibly from a boat. An 2.5 m (8 ft) section of 2 m (3/4 inch) galvanized pipe with a pipe union at one end also was recovered. These objects account for the magnetics encountered during the initial survey. Anomaly No. 31 is not a cultural resource; additional investigation of this anomaly is not warranted.

Anomaly No. 33

Anomaly No. 33 was originally defined as a complex, dipolar anomaly located at River Mile 2.0. It measured approximately 46 x 168 m (150 x 550 ft), and correlated well with the locations of Saunder's sugar house and landing and with the schooner *John Bowles* (Howell 1870).

A physical search of the river bottom, metal detector survey, and probing to depths ranging from 10 to 15 ft below water surface, produced evidence of structure at one locus within the channel. However, additional probing failed to produce any additional structural remains. The structure, possibly a large log, was encountered 14 to 15 ft below water surface and within the current channel. Anomaly No. 33 is not a cultural resource; additional investigation of this anomaly is not warranted.

Anomaly No. 58

Anomaly No. 58 was defined originally as a monopolar anomaly near River Mile 0.31. It measured approximately 76 x 79 m (250 x 260 ft). Attempts were made to relocate Anomaly No. 58; several small anomalies were located outside of the channel. However, no evidence of the previously recorded monopolar anomaly was found during the present survey. The original cause of the anomaly may have been a since-removed trotline. The small anomalies occurred ten to eleven feet below water surface, and represent modern debris. Anomaly No. 58 is not a cultural resource; additional investigation of this anomaly is not warranted.

Summary

Eight previously identified underwater magnetic anomalies were examined and evaluated. Two of these, Anomaly Nos. 30 and 58 could not be relocated. Four of the anomalies apparently are associated with modern debris: Anomaly Nos. 8, 13, 29, and 31. Anomaly No. 33 appears to be an isolated object. Evidence of structure was observed 14 to 15 ft below water surface; this structure may be a large log. It occurs below the project impact zone and will not be affected by the proposed dredging.

One archeological site, the Anomaly No. 23/24 Complex (16SMY76), was encountered at River Mile 2.75. This site represents the remains of three wooden structures: possibly two barges, and modern bridge debris. While portions of the anomaly appear to extend into the project area, they are at depths below the area of dredge impact (8 ft). The dredging project, as currently designed, will have no effect on these resources since they extend beneath the direct impact zone. No additional work is recommended at this time. However, the Anomaly No. 23/24 Complex (16SMY76) may possess the quality of significance as defined by National Register of Historic Places criteria (36 CFR 60.4). If construction designs change, resulting in impact to the shallower portions of the anomalies, a determination of eligibility should be made prior to project construction.

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APPENDIX I

NAMES AND POSITIONS OF BOATS SUNK IN BAYOU TECHE

From National Archives Record Group 77, File H805 3rd Division, June 14, 1870

Howell, B. Major C. W. Report on the Survey of Bayou Teche with accompanying papers and drawings.

Names and Positions of Boats Sunk in the Bayou Teche

NO.	NAME	DISTANCE FROM SHORE	DEPTH OF WATER IN WHICH LYING	APPROXIMATE DIMENSIONS		MACHINERY	CONDITION	REMARKS
				LENGTH	BEAM			
1	Old flat boat	Edge of bank		100 ft.	20 ft.	None	Bad	Not in the channel.
*2	Steamer "Iberia"	10 ft.	7 ft.	120 ft.	25 ft.	None	Bad	Bow in channel (to be entirely removed).
3	Flat boat	Edge of bank	Visible	150 ft.	20 ft.	None	Bad	Not in channel (to be entirely removed).
*4	Steamboat "Guide"	20 ft.	6 ft.	120 ft.	25 ft.	All sunk; machinery very small	Bad	In channel; bought before war for \$2,500 (to be entirely removed).
*5	Steamboat "Frank Keeling"	20 ft.	5 ft.	150 ft.	30 ft.	None	Bad	In channel (to be entirely removed).
6	Steamboat "Andrews"	Edge of bank	Visible	150 ft.	25 ft.	None	Bad	Not in the channel.
*7	Steamboat "F. J. Hart"	Edge of bank	Stern in 6 ft.	120 ft.	20 ft.	None	Bad	In the channel (to be entirely removed).
*8	Job boat "Rob Roy"	From shore into stream	Upper works visible	130 ft.	25 ft.	None	Bad	In the channel (to be entirely removed; since survey removed ???).
*9	Transport "Minerva"	Parallel with shore	Upper works visible	125 ft.	20 ft.	None	Bad	In the channel (to be entirely removed).
*10	Job boat "Homer"	30 ft.	7 ft.	120 ft.	20 ft.	None	Bad	In channel - sunk 1855 (to be entirely removed).

NO.	NAME	DISTANCE FROM SHORE	DEPTH OF WATER IN WHICH LYING	APPROXIMATE DIMENSIONS		MACHINERY	CONDITION	REMARKS
				LENGTH	BEAM			
*11	Old hull "Ajax"	From shore into stream	Stern in 7 ft.	120 ft.	25 ft.	None	Bad	Falling to pieces - easily removed (to be removed).
12	Flat boat	Middle of stream	8 ft. 6 in.			None	Bad	No obstruction - embedded in mud.
13	Flat boat	Middle of stream	9 ft.			None	Bad	No obstruction - embedded in mud.
14	Steamboat "Union"	20 ft.	10 ft.			None	Bad	No obstruction - embedded in mud.
*15	Steamboat "Diana"	Diagonal direction upstream		150 ft.	30 ft.	Shafts and cylinders visible	Bad	An obstruction (to be entirely removed).
*16	Bottom of flat boat					None	Bad	Rises when steamboats pass - an obstruction (pull out).
17	Steamer "Texas"	Side of bank		140 ft.	30 ft.	None	Bad	No obstruction.
*18	Schooner	12 ft.	6 ft.			None	Bad	An obstruction (to be removed).
19	Schooner "Essex"	Side of bank				None	Bad	No obstruction.
20	Hull of Leglitter "Agillut" (illegible)	20 ft.	5 ft.	170 ft.	30 ft.	None	Bad	An obstruction (plenty of room in channel without removing).

NO.	NAME	DISTANCE FROM SHORE	DEPTH OF WATER IN WHICH LYING	APPROXIMATE DIMENSIONS		MACHINERY	CONDITION	REMARKS
				LENGTH	BEAM			
*21	Steamboat "Gossamer"	75 ft.	Visible	150 ft.	30 ft.	None	Bad	An obstruction (to be entirely removed).
*22	Steamboat "Newsboy"	75 ft.	Visible	150 ft.	30 ft.	None	Bad	An obstruction (to be entirely removed).
23	Gunboat "Rusk"	Side of bank	Visible	140 ft.	30 ft.	2 old boilers	Bad	No obstruction.
24	Steamboat "Eva No. 2"	Side of bank	Visible	140 ft.	25 ft.	2 old boilers	Bad	No obstruction.
*25	Schooner "H. Foole"	Near center of bridge	6 ft.	100 ft.	20 ft.	2 old boilers	Bad	An obstruction (can be hauled next to bank).
*26	Barge "Abe Smirk"	75 ft.	6 ft.	140 ft.	30 ft.	2 old boilers	Bad	An obstruction, rises (can be hauled to one side).
27	Canal boat "Hudson"	From bank into stream	Stern in 3 ft.			None	Bad	No obstruction.
28	Barge "Camden"	20 ft.	4 ft.	100 ft.	20 ft.	None	Bad	No obstruction.
*29	Steamer "Ploughboy"	100 ft.	8 ft. 6 in.			None	Bad	An obstruction (can be hauled up bank).
*30	2 sections of pontoons	Middle of stream	Partly visible	23 ft.	12 ft.	None	Bad	An obstruction (above high water line; to be hauled up on bank).

NO.	NAME	DISTANCE FROM SHORE	DEPTH OF WATER IN WHICH LYING	APPROXIMATE DIMENSIONS		MACHINERY	CONDITION	REMARKS
				LENGTH	BEAM			
*31	Schooner	50 ft.	6 ft.	175 ft.	25 ft.	None	Bad	An obstruction, loaded with brick. (Was sunk at stern of J. B. Cotton and hauled to present position by U.S. gunboat during the war - can be hauled out of way)
*32	Gunboat "J.B. Cotton"			250 ft.	50 ft.	Wheel shafts, cylinder valves	Bad plates except the boiler	An obstruction (Machinery bought by Walker & Bronson, who removed the boilers.) (to be removed as far back as wheel shaft) [can be hauled out of (illegible)].
*33	Brick boat	75 ft.	9 ft.			None	Bad	No obstruction - loaded with brick.
*34	Gunboat "Fly Catcher"	200 ft.	6 ft.	155 ft.	30 ft.	Some machinery		An obstruction (to be removed to bank).
*35	Three brick barges	150 ft.	6 ft.			None		An obstruction, sunk one on top of the other. Loaded with bricks (to be removed to near bank).

[illegible]

APPENDIX II

SURVEY NOTES FROM MAJOR C. W. HOWELL'S 1870 REPORT

From National Archives Record Group 77, File H805 3rd Division, June 14, 1870

Howell, B. Major C. W. Report on the Survey of Bayou Teche with accompanying papers and drawings.

Sheet No. 2.
Dimensions of Trees
to be felled.

H 505
 1880

	Average Length	Average Diameter	
Live Oak	20 ft	3 ft 9 in.	30' radius of Branches.
Cypress	30 "	2 ft 6 in.	
Hickory	20 "	2 ft	
Gum	20 "	2 ft.	

Dimensions of Steamboats
employed in the
Bayou Teche

Name of Steamboat	Length	Beam (overall)	Draft.		Tonnage.
			Light	Loaded	
Warren Belle	150 ft.	38 ft	30 in.	5 ft	146 Tons
Minnie Avery	120 ft.	26 "	13 in.	40 in.	100 "
Peerless.	150 ft	38 "	18 "	4 ft 6 in.	200 "
New Boat now building at Louisville	132 ft.	38 "	23 "	5 ft.	155 "

Sheet No. 3-

Rise and Fall of Tides in Bayou Teche

At Franklin, the tide rise and fall	12 inches
At New Iberia,	7 inches
At St. Martinsville	3 inches
At "Swamp" Bridge (2 1/2 miles above St. Martinsville) it is	Stationary

Velocity of Current.

In calm weather,	(about)	1 ft per second
After heavy rains at low water	"	2 ft " "
Tides	"	3 ft " "
During heavy "floods", and high tides	"	4 ft " "

Floods.

Heavy rains will raise the Teche about 3 inches per hour for 24 or 36 hours after cessation,

the whole flood the current is -

Between Grand Bridge and St. Martinsville	2 miles per hour	3 ft per second
" St. Martinsville and New Iberia	1 " " "	1 1/2 " " "
" New Iberia and Franklin	1/2 " " "	3/4 " " "
" Franklin and influence	1/4 " " "	1/2 " " "

General Measurements

	Depth		Width	
	Surface	Low	Surface	Low
From St. Martinsville to New Iberia	12 ft	4 ft	105 ft	66 ft
" New Iberia to Franklin	13 1/2 "	15 1/2 "	280 "	100 "
" Franklin to influence	17 "	7 "	450 "	120 "

Note, Three weeks prior to the taking of the survey no rains had fallen and during the prosecution of the work the atmosphere was clear, a light N.W. wind prevailing from 10 a.m. to 4 p.m. every day.

H 825

St Martinsville,
to
New Iberia.

PAGES 1 TO 8

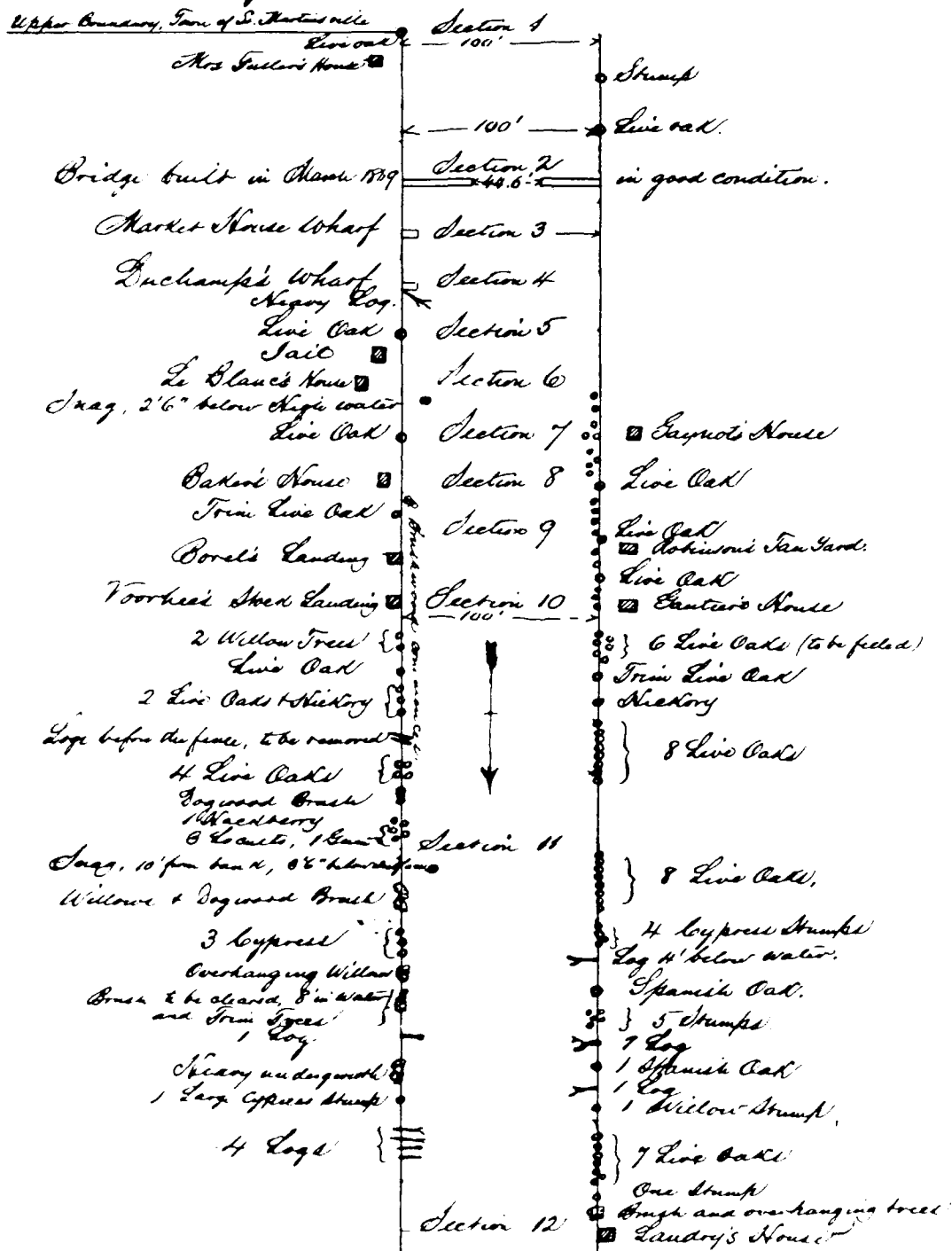
Recommendations.

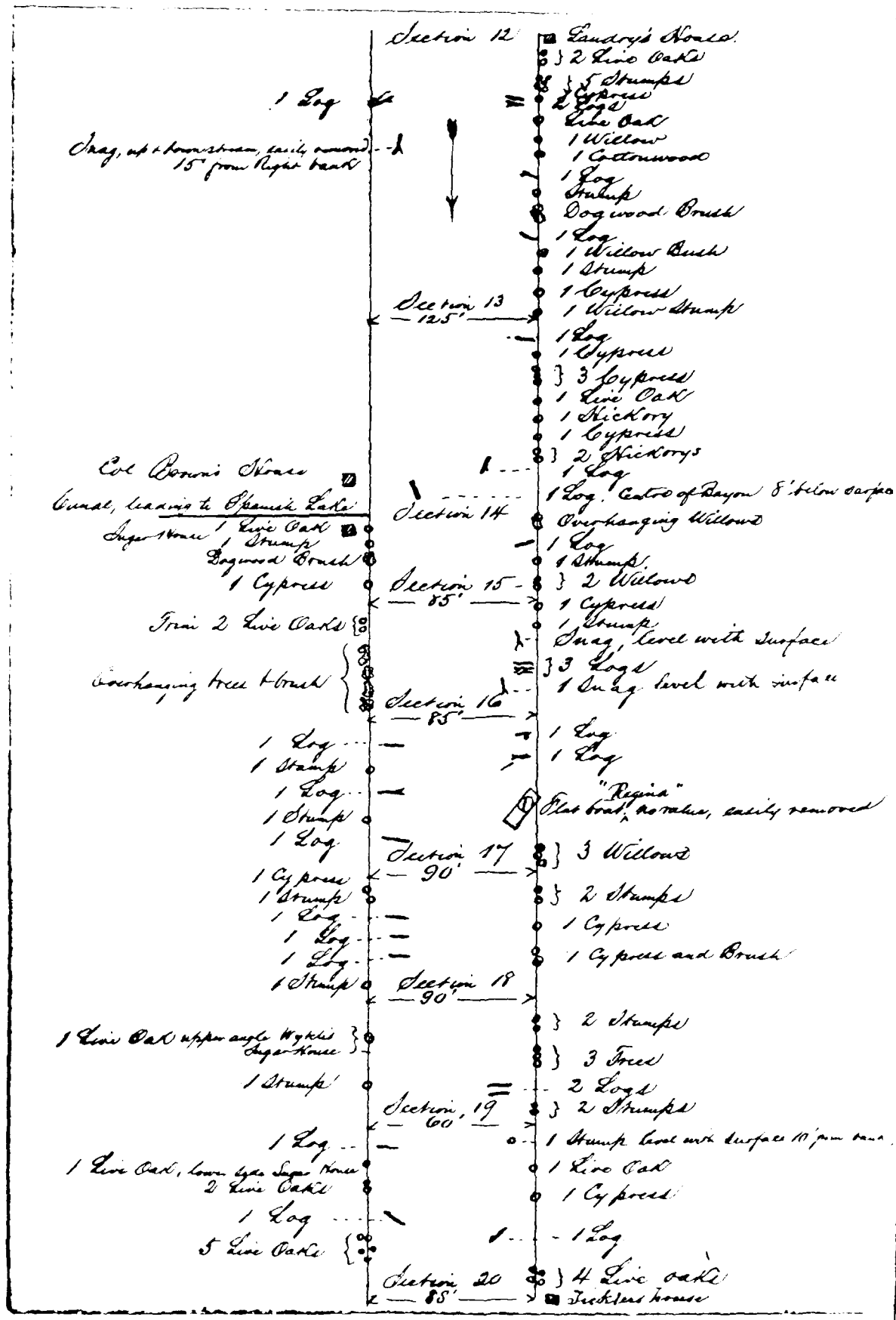
Truss & Log.	marked others	(x)
Widening north	"	" (----)
Wicks re.	"	" (x)

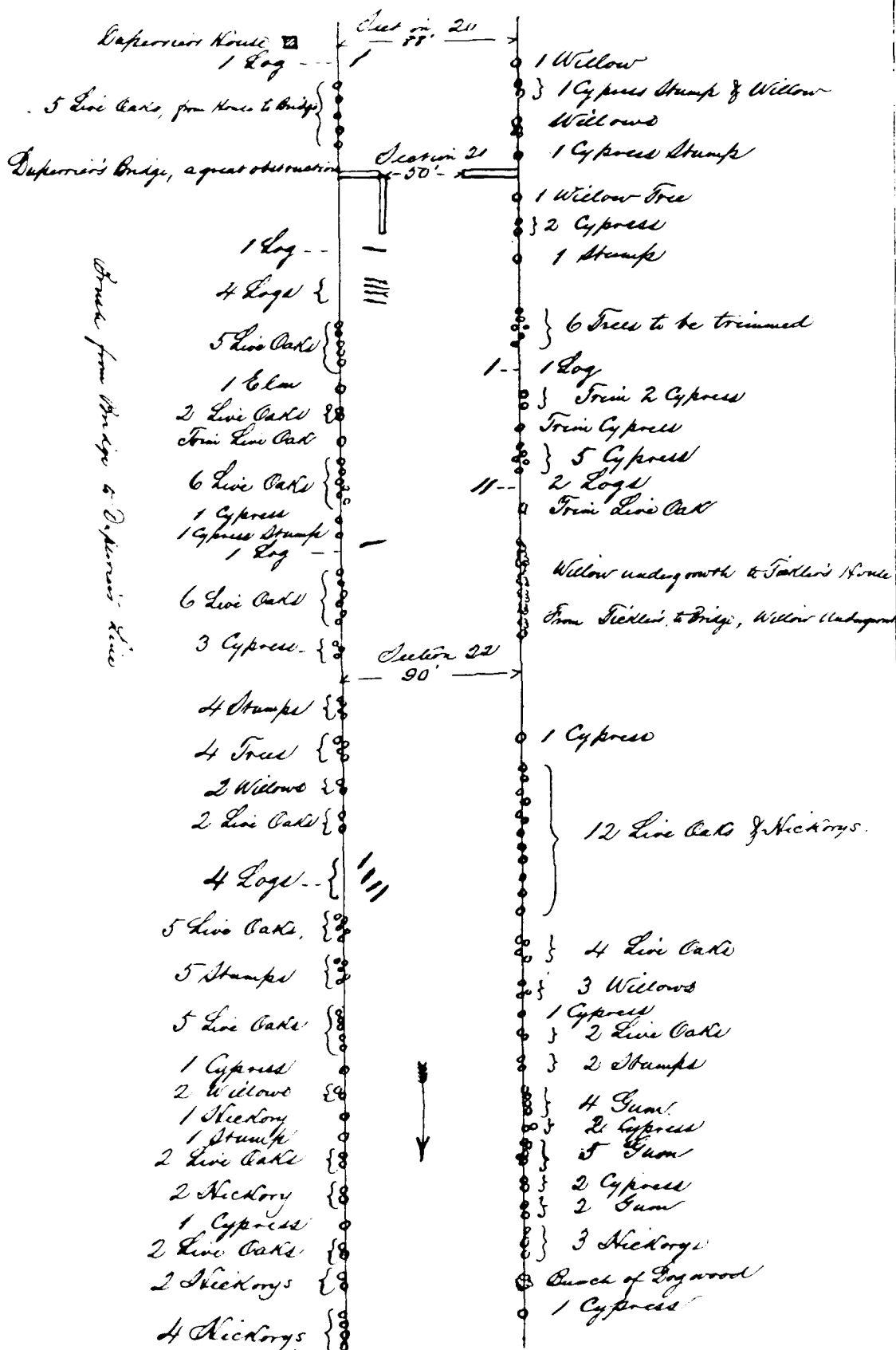
Survey of the Bayou Teche,

May 1870

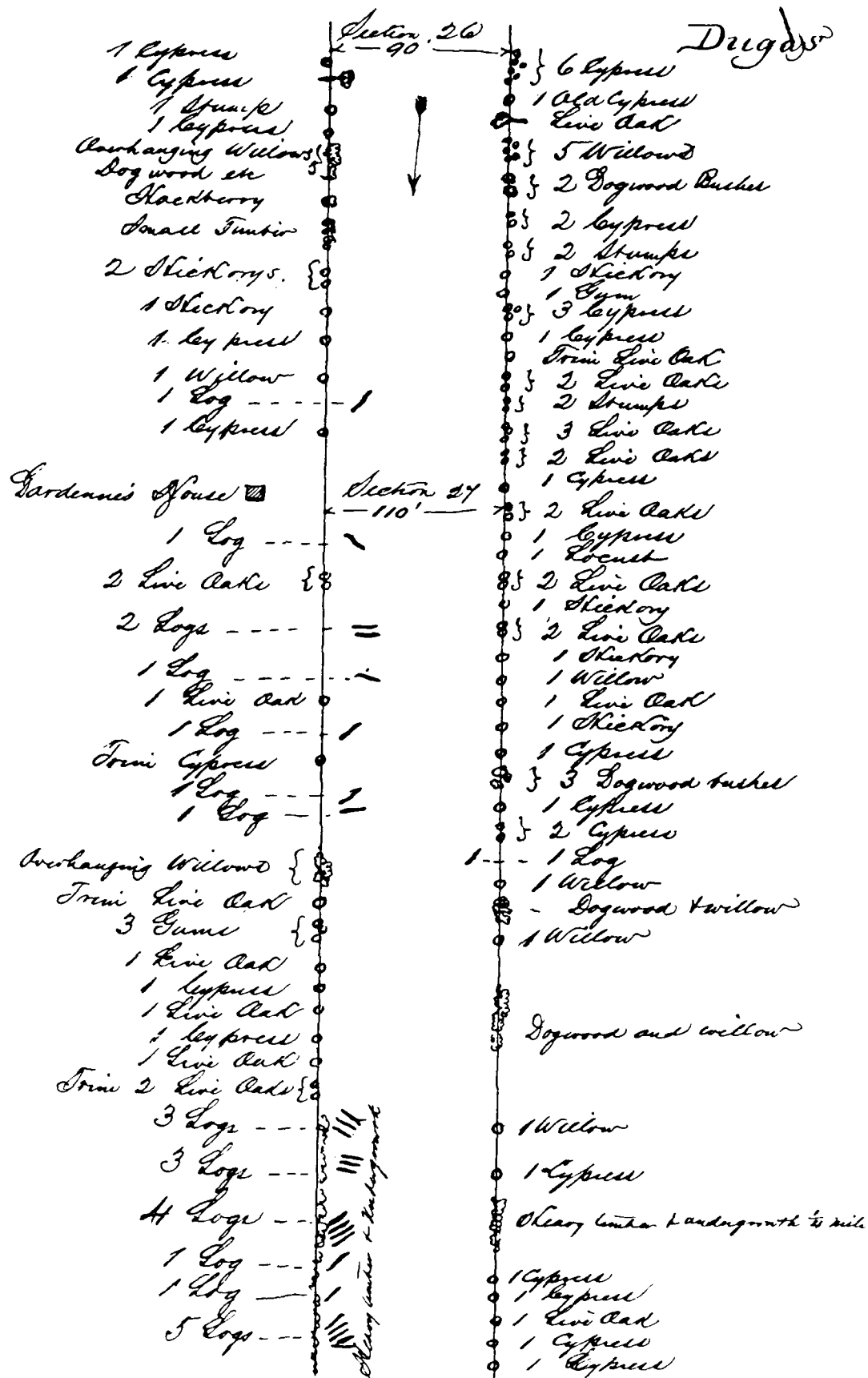
Commencing at Live oak at Mrs Fuller's House.







From One Live Oak		1 Hickory
12 Stumps		1 Live Oak
2 Hickorys		From Live Oak
1 Old Oak		3 Stumps
1 Stump		3 Live Oaks
1 Live Oak		2 Cypress
1 Cypress	Section 23 -100'-	1 Log
1 Hickory		1 Cypress
Overhanging Willow		2 Stumps
2 Willows		1 Old Tree
1 Log		1 Live Oak
5 Willows		From Live Oak
2 Stumps		Dogwood Bush
From Live Oak		1 Log
1 Hickory		1 Old Tree
1 Willow		1 Cypress
Willow Bush		3 Stumps
1 Live Oak		From Live Oak
2 Gum		3 Cypress
From Live Oak		1 Willow
1 Willow	Section 24 -100'-	Overhanging Willow
4 Hickorys		2 Live Oaks
Willows		2 Stumps
2 Ash		3 Live Oaks
Willow Bush		1 Log
1 Gum		3 Stumps
2 Gum		1 Cypress
Overhanging Willows		1 Cypress
1 Log		Willow brush
		2 Logs
		1 Log
		1 Cypress
		1 Stump
		Overhanging Willows
		3 Cypress
		1 Log
	Section 25 -95'-	4 Gum
1 Willow		2 Cypress
3 Hickorys		1 Ash
		12 Stumps
1 Cypress		2 Gum
1 Ash		1 Willow
1 Hickory	Section 26 -90'-	1 Hickory



- 1 Log --- 1
 1 Live Oak
 1 Log --- 1
 1 Gum
 2 Cypress {
 3 Cypress {
 1 Hickory
 3 Cypress {

1 Willow
 1 Cypress
 2 Logs --- 11
 1 Cypress
 1 Gum
 1 Cypress

Wreck of Steamer Thera, bar at 1813.
 Hull 120' x 25' Beam, no machinery
 can be hauled up on the haul. Her
 bow is 7' below surface of water

2 Hickory {
 5 Cypress {
 2 Live Oaks {
 1 Cypress {

1 Cypress
 1 Cypress
 3 Cypress
 1 Spanish Oak
 1 Cypress

Section 28
95'

Wreck 2

1 Cypress
 1 Live Oak
 1 Hickory
 } Dogwood & Cypress trunks!
 1 Cypress

1 Log
 1 Cypress
 1 Cypress
 1 Dogwood
 1 Hickory

1 Log
 1 Willow
 1 Cypress
 1 Hickory
 } Logs puting on haul, tops floating
 1 Log
 1 Stump
 1 Hickory

1 Dogwood
 } 4 Stumps
 1 Cypress
 1 Hickory
 } 3 Cypress

3 Large Oak Tree

10 Live Oaks
 Cypress
 1 Hickory

1 Log
 1 Live Oak
 1 Cypress
 1 Willow
 3 Stumps

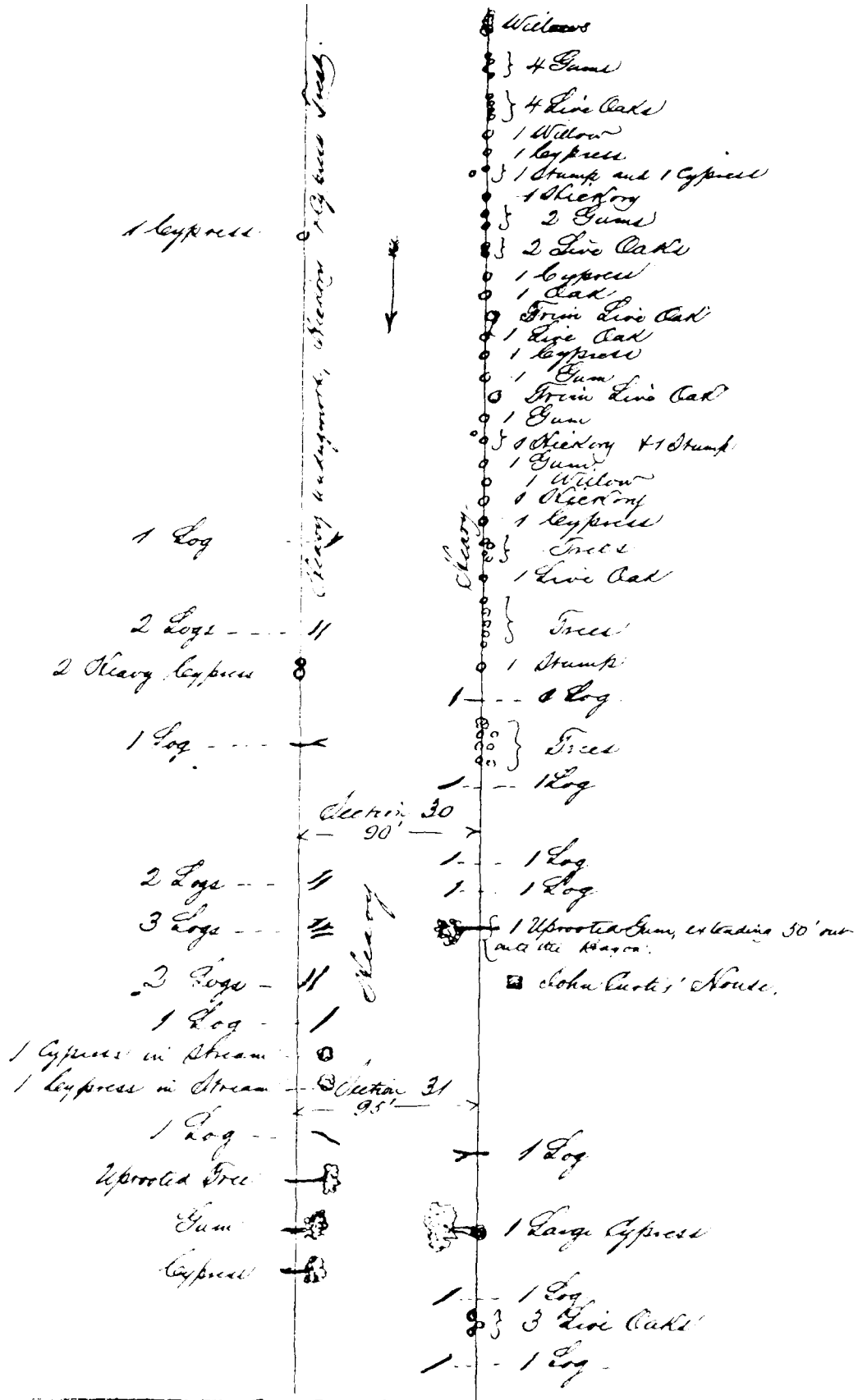
8 Live Oaks & 3 Logs

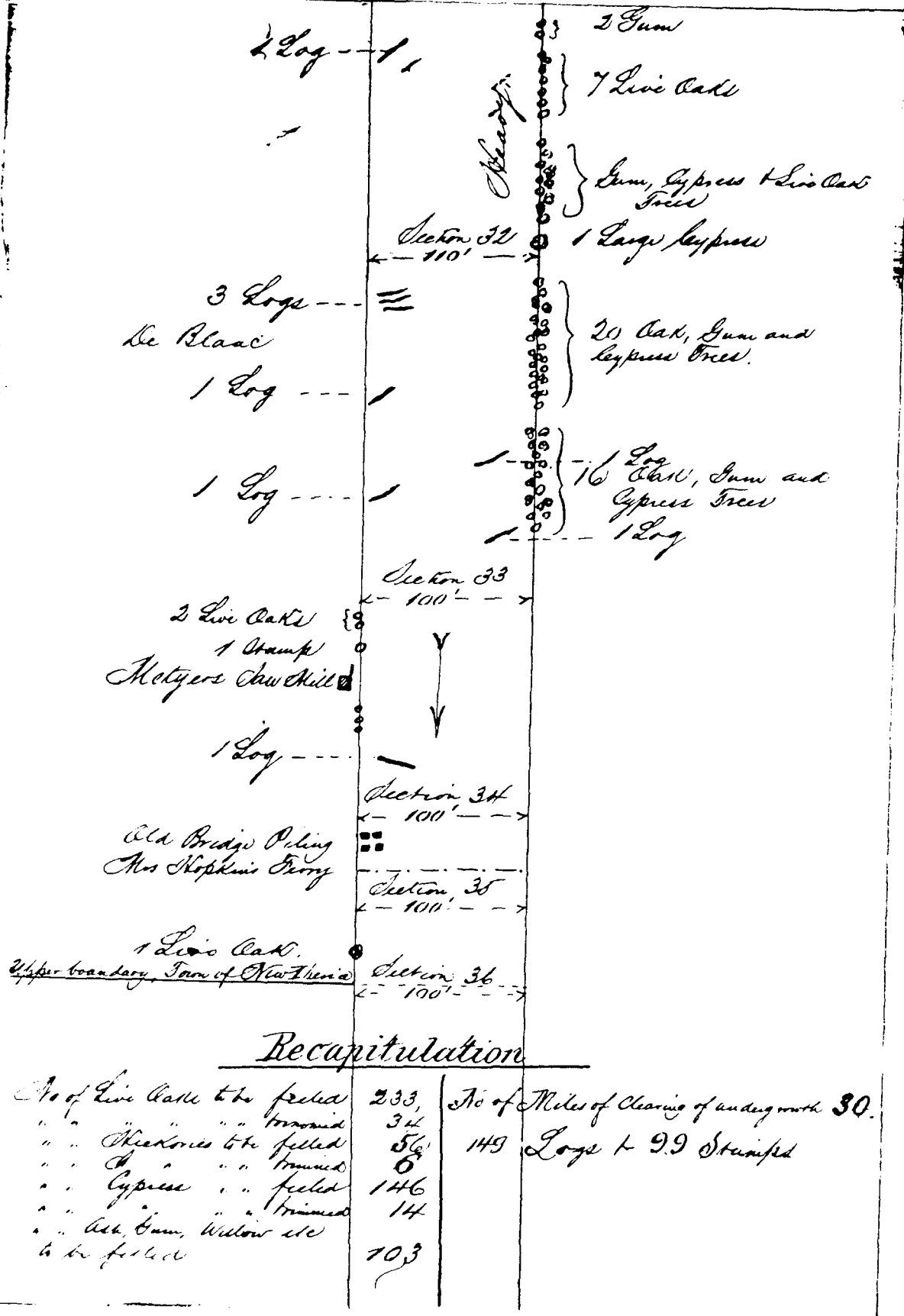
1 Oak Tree

Stumps
 4 Live Oaks

1 Cypress
 3 Live Oaks

Willows one hanging





1118

Bryan Teche

Survey

from 1.

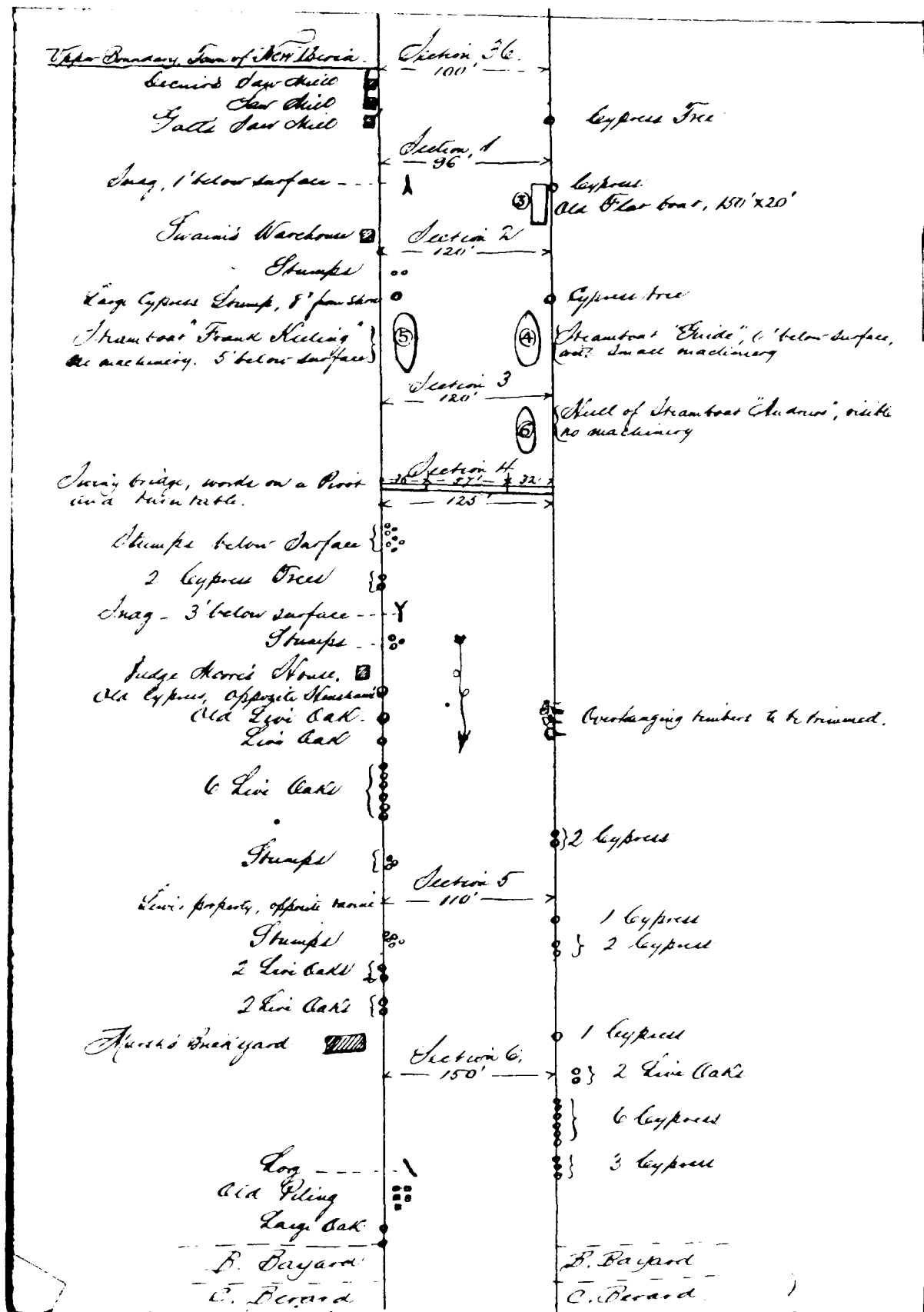
New Iberia 1

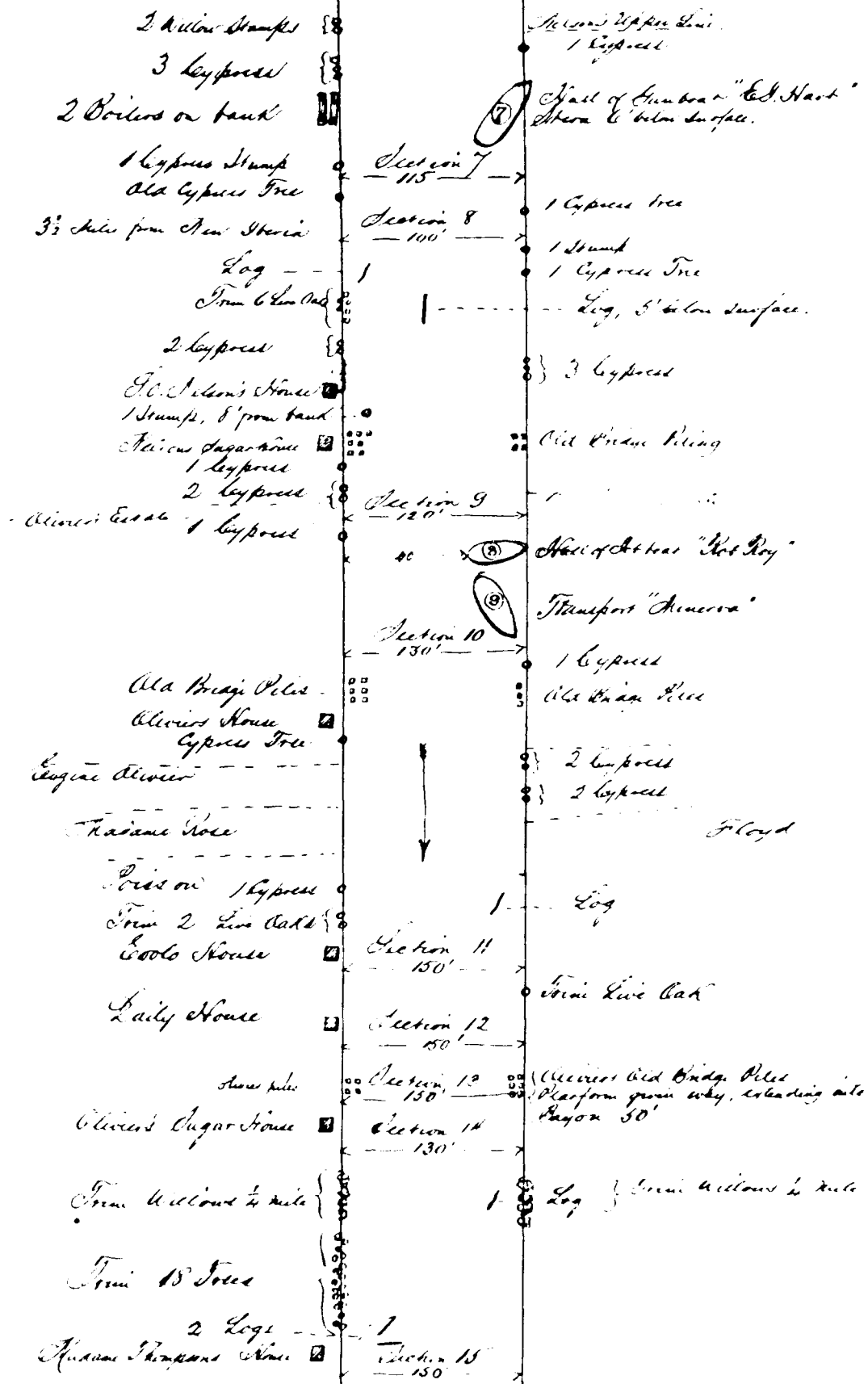
to

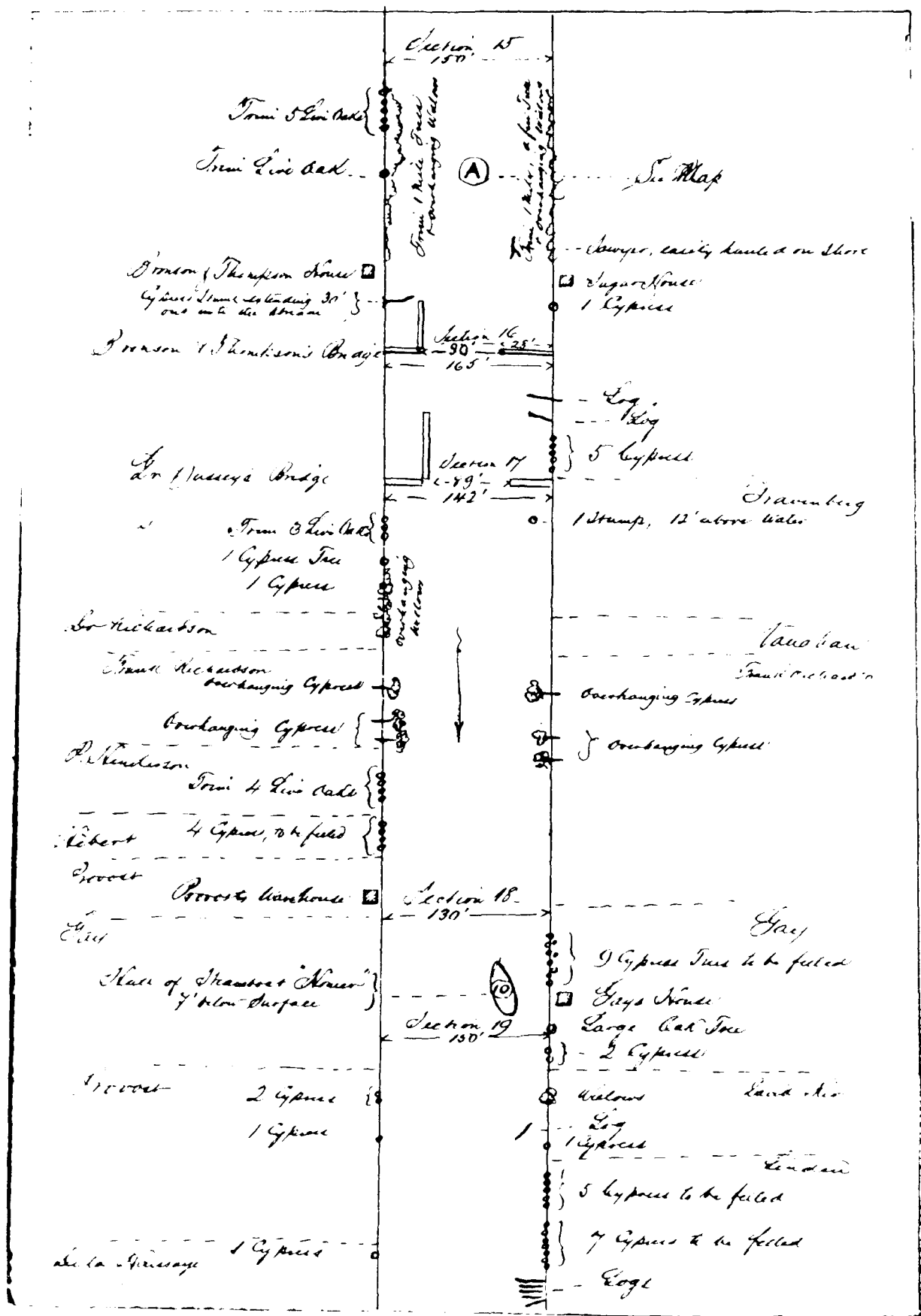
Franklin

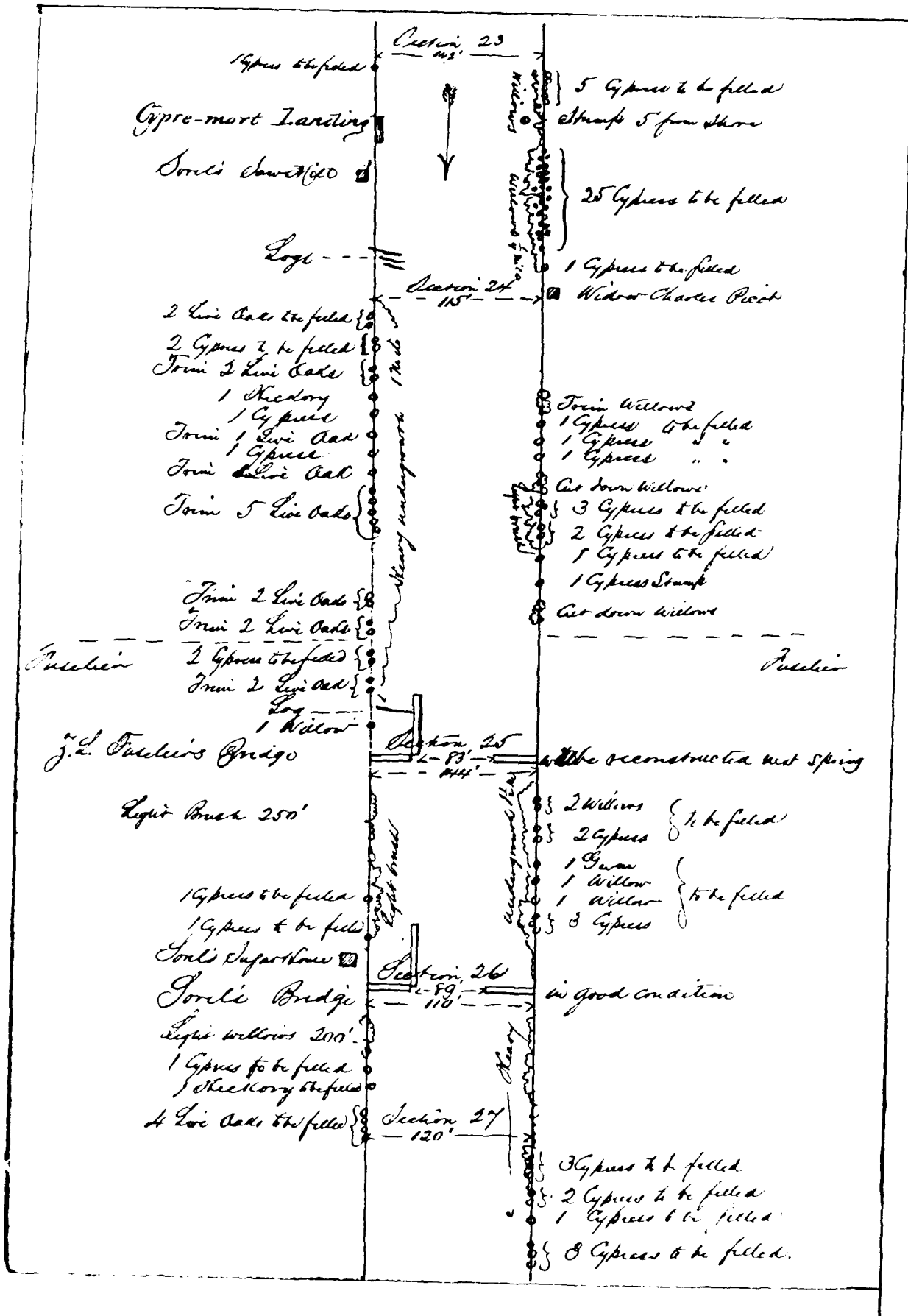
Pages 9 to 22.

- 488 -









Austin & White House Bridge

Section 28
177' - 100'

1 Cypress to be felled
1 Cypress to be felled

For Force

2 Cypress to be felled
1 Cypress to be felled
2 Cypress & Willows to be felled
Willow

Willow

Section 29
140'

Flat boat 8'6" below surface
No observation

(12)

1 Cypress to be felled
1 Live Oak

Section 30
140'

1 Oak tree, cross side Marshall's line
2 Live Oaks to be felled
1 Log
1 Live Oak to be felled
1 Log

Section 31
120'

Ones - 5'6" below surface, removed

Ferry at Charantou
1 Live Oak to be felled
Log
Uprooted tree
Stump
Uprooted tree
1 Live Oak, to be felled
1 Cypress, to be felled
7 Live Oaks, to be felled

Charantou

1 Willow

Section 32
110'

2 Live Oaks
1 Cypress
1 Live Oak
1 Live Oak
Old tree
Old tree
Log & Stump

Charantou

Section 33
110'

Marshall's Ferry Landing

2 Willows
2 Willows
1 Cypress

1 Cypress
2 Live Oaks

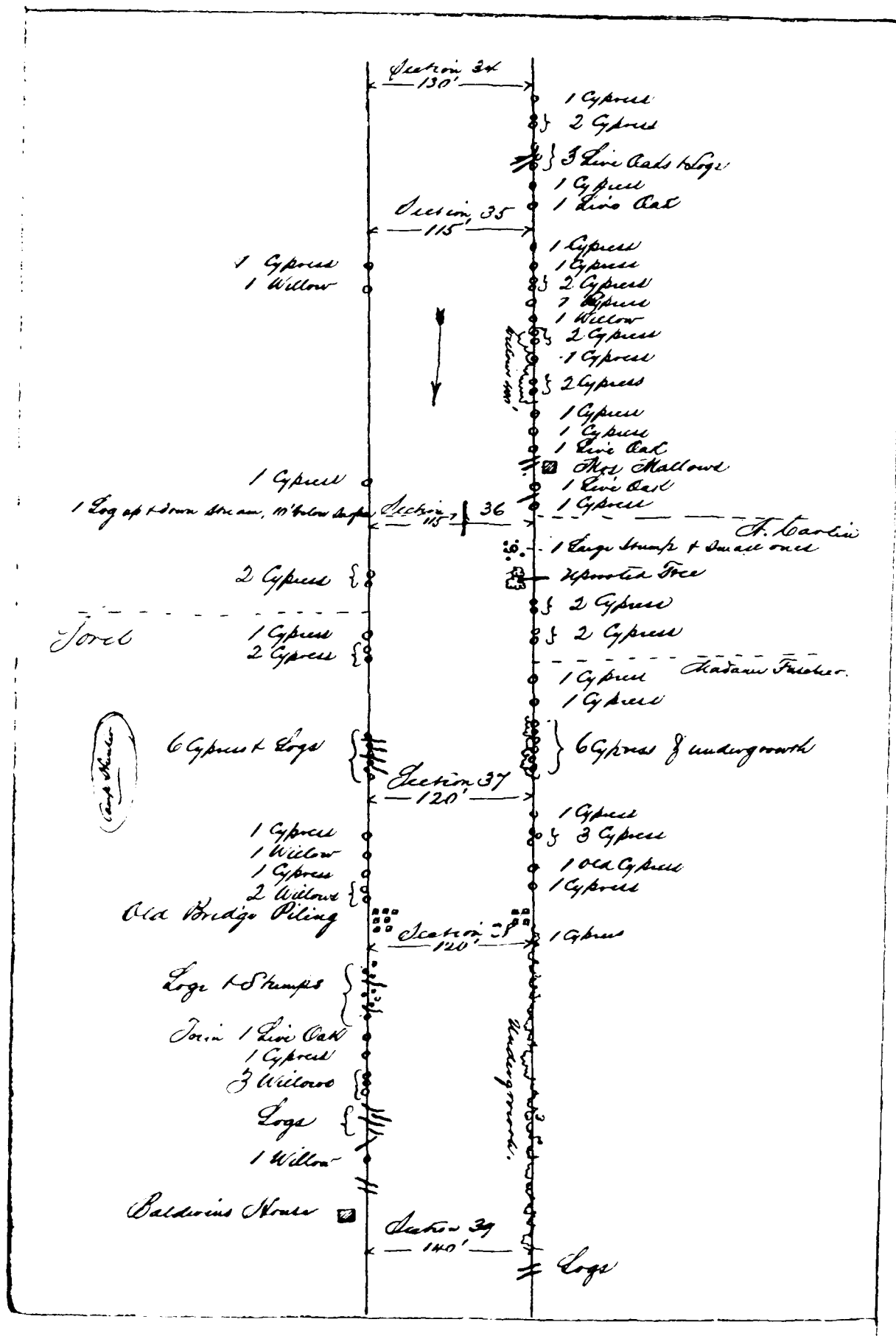
Reet Landing

5 Willows

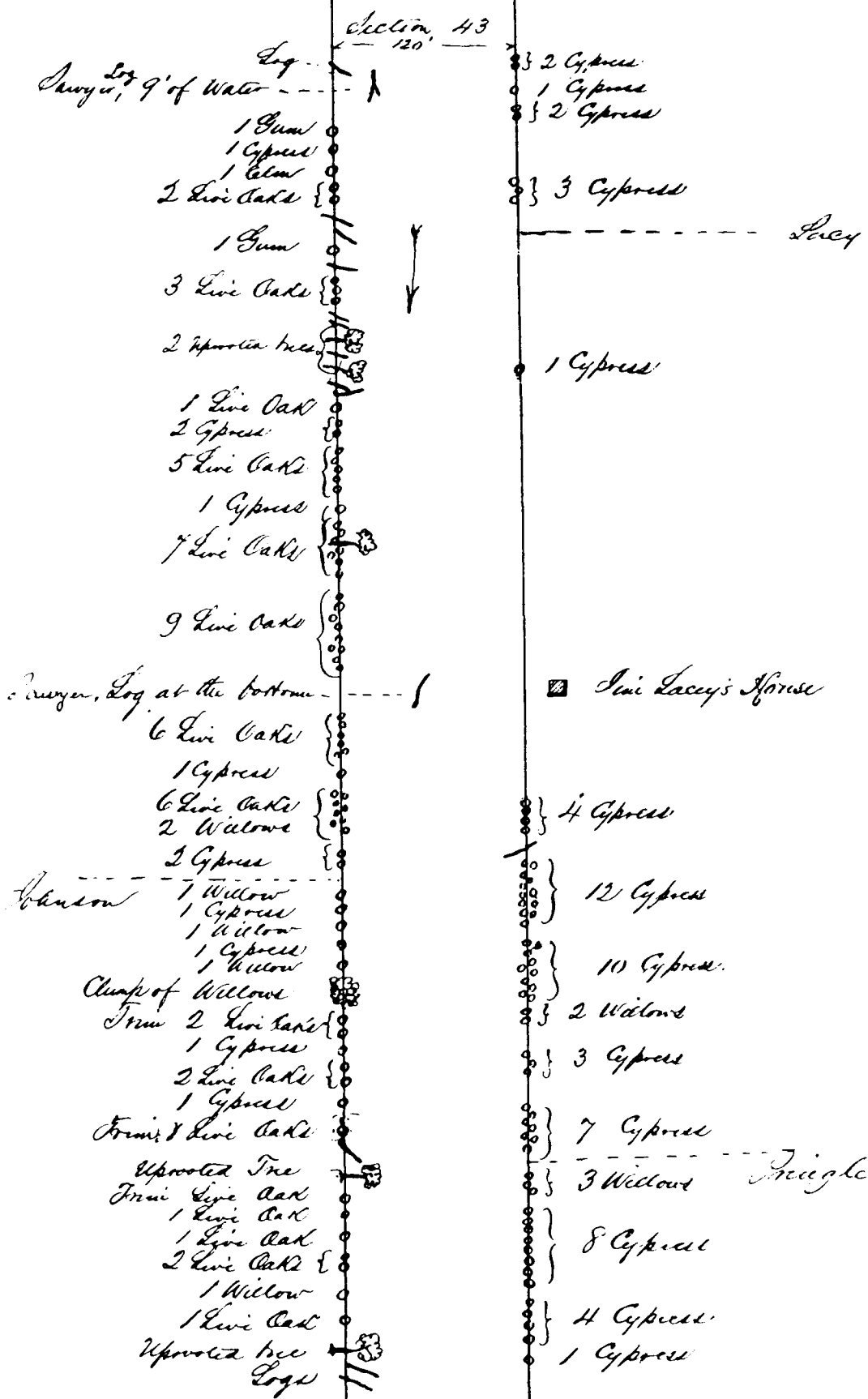
Marshall's Landing

Section 34
130'

2 Cypress



5 Live Oaks
1 Live Oak
1 Cypress + Stamp
Log
11 Live Oaks
1 Cypress & Stamp
Log
Orphan Asylum
7 Live Oaks
+ Stamp
Log + Stamp
Log
1 Live Oak
100' Tree
1 Live Oak
Stamp
100' Tree
2 Stamp
1 Live Oak
1 Stamp
1 Live Oak
Trini Live Oak
Trini Live Oak
3 Live Oaks
1 Live Oak
Branch of Spanish Oak
1 Live Oak
Willow
5 Live Oaks
2 Live Oaks
Trini Live Oak
1 Live Oak
Stamp
2 Live Oaks
1 Cypress
1 Willow
1 Live Oak
2 Live Oaks
3 Live Oaks
3 Live Oaks
2 Live Oaks
2 Live Oaks
5 Live Oaks
1 Live Oak
Log on bottom, close to hull
Log 10' below surface, embedded in mud.
1 1/2 mile
Section 40
100'
and - under ground
Section 41
110'
1 Cypress
2 Cypress
1 Cypress
3 Cypress
20 Cypress to be filled
6 Cypress to be filled
6 Cypress to be filled
5 Cypress to be filled
6 Cypress to be filled
2 Cypress
1 Cypress
Hull of Flatboat, 9' below surface
Section 42
125'
Section 43
120'



1 Live Oak
uprooted tree
Pringle's Bridge

Section 44

Pringle's House

69-170'

2 Cypress
1 Cypress
1 Cypress

Section 45

2 Cypress & Heavy Log
Pringle's Saw Shell

170'

3 Live Oak
2 Live Oak

uprooted "live" Cypress
shell 16' below surface
imbedded in mud



1 Live Oak
1 Cypress
1 Cypress
Log & Stumps
1 Cypress

Section 46

Sugar House

170'

1 Cypress
1 Cypress
Uprooted Tree
1 Cypress & Stumps
1 Stump

Section 47

2 Live Oak

170'

1 Live Oak
1 Cypress
1 Live Oak
2 Cypress
1 Cypress
1 Cypress

Shabanu's House



4 Cypress
2 Live Oak
1 Cypress
1 Live Oak

1 Cypress
1 Cypress

Porter's Sugar House
Bridge Piling

1 Cypress
1 Cypress
1 Cypress

1 Cypress
1 Cypress
Stumps
1 Live Oak

Porter's Bridge

Section 48

75-220'

Old Bridge Piling
1 Live Oak
1 Live Oak
3 Live Oak
1 Live Oak

Tom Chaffer

Sheffer's Bridge

2 uprooted trees
1 Cypress

2 uprooted trees
9 Live Oaks

2 uprooted trees

Wicker & Branson's Bridge

6 Live Oaks

uprooted tree

1 Live Oak

uprooted tree

2 Live Oaks

uprooted tree

2 Live Oaks

1 Live Oak

18 bridge piles, extending 40' into stream

1 Live Oak

Old bridge piles

3 Live Oaks

Palo Alto Bridge

1 Live Oak

1 Log
1 Live Oak
2 Live Oaks
1 Cypress
1 Live Oak
1 Swamp
1 Cypress
1 Live Oak
old bridge piling
2 Log

Tom Shaffer

Section 44
98'
270'

Section 50
93'
280'

Section 51
98'
278'

Section 52
250'

1 Cypress

2 Cypress

16 bridge piles, extending 40' into stream

1 Live Oak

1 Live Oak

1 Cypress

3 Cypress

1 Live Oak

1 Live Oak

4 Live Oaks

4 Live Oaks

Timon's Sugar House

1 Live Oak

1 Cypress

1 Cypress

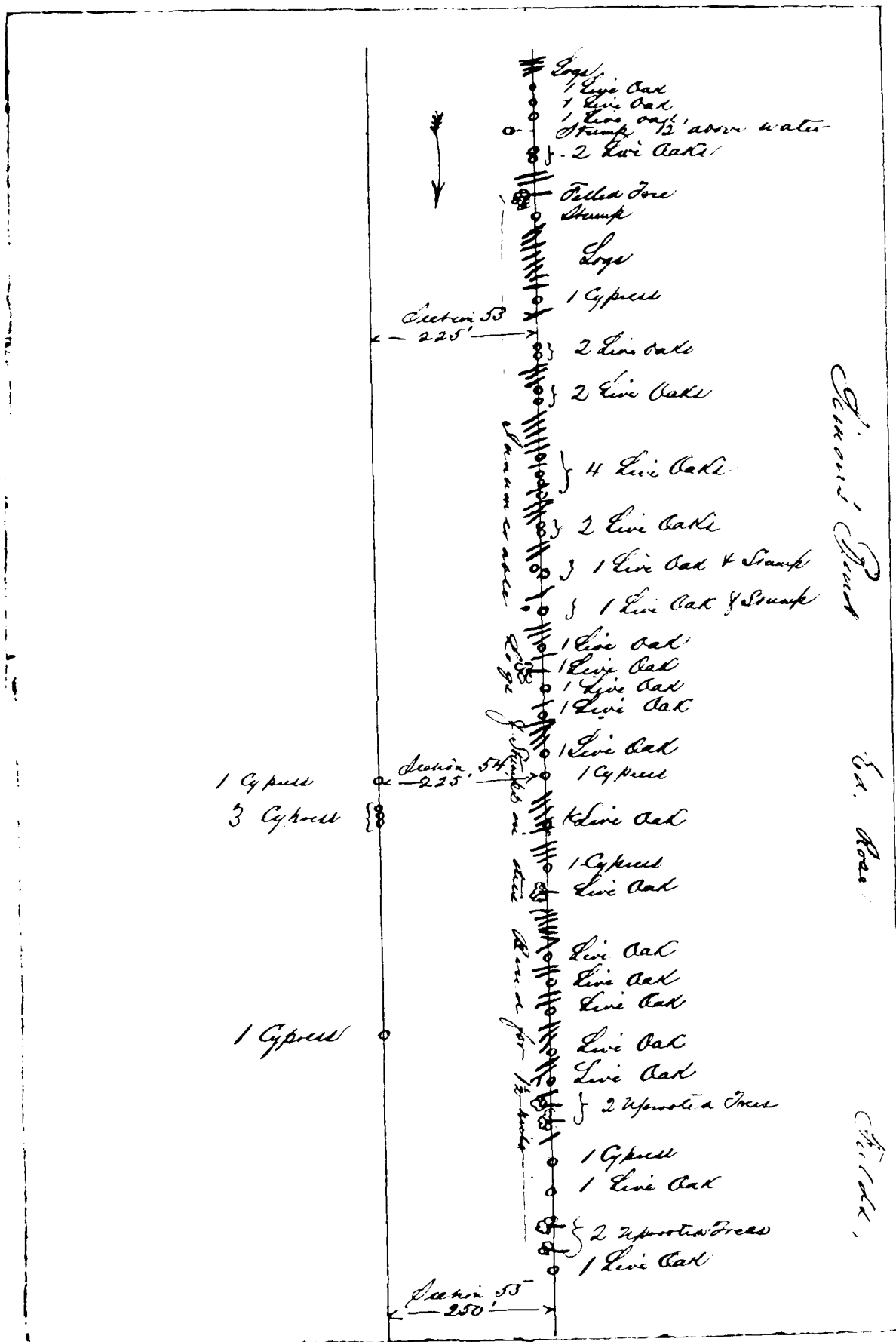
1 Cypress

1 Live Oak

2 Live Oaks

1 Swamp

3 Logs

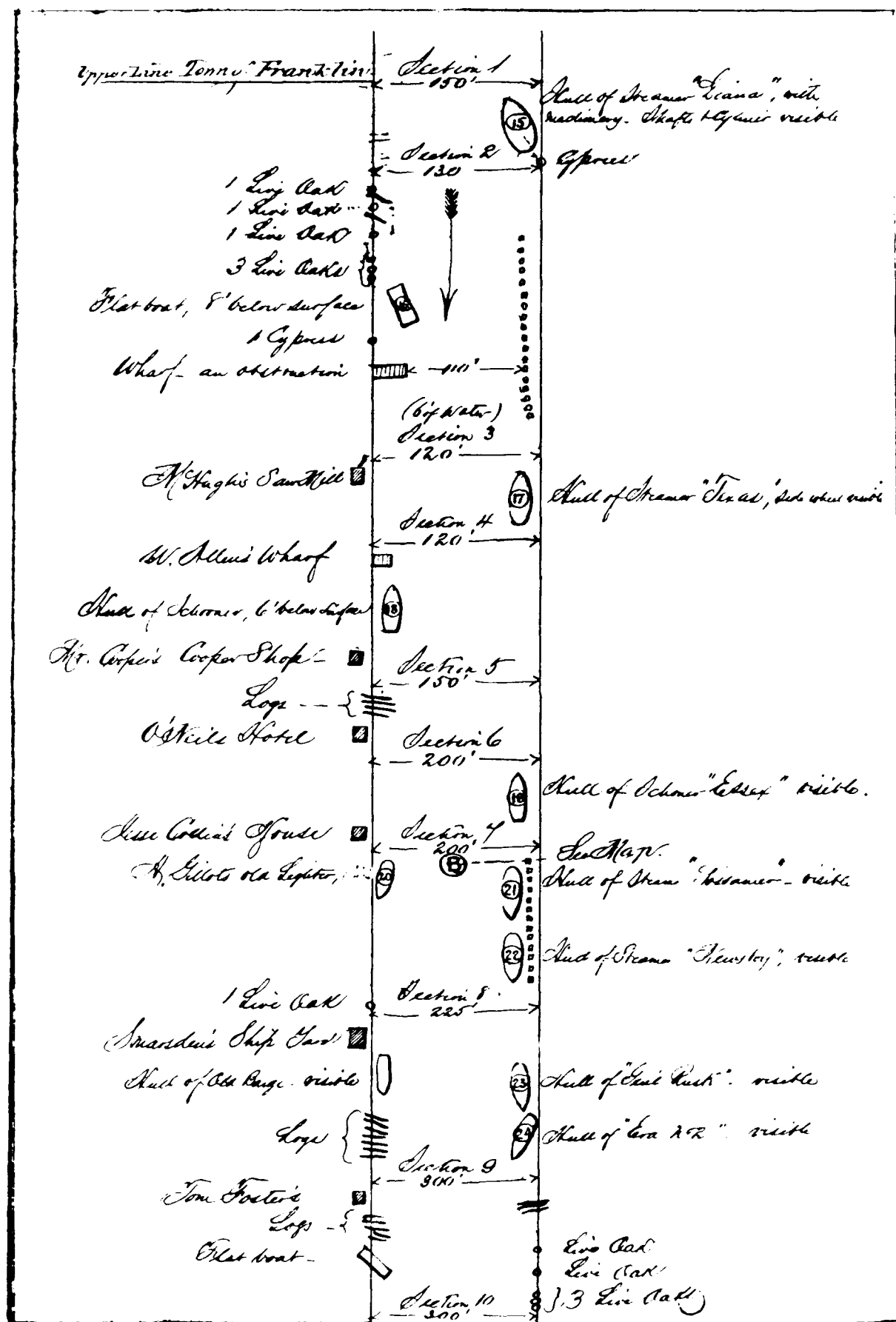


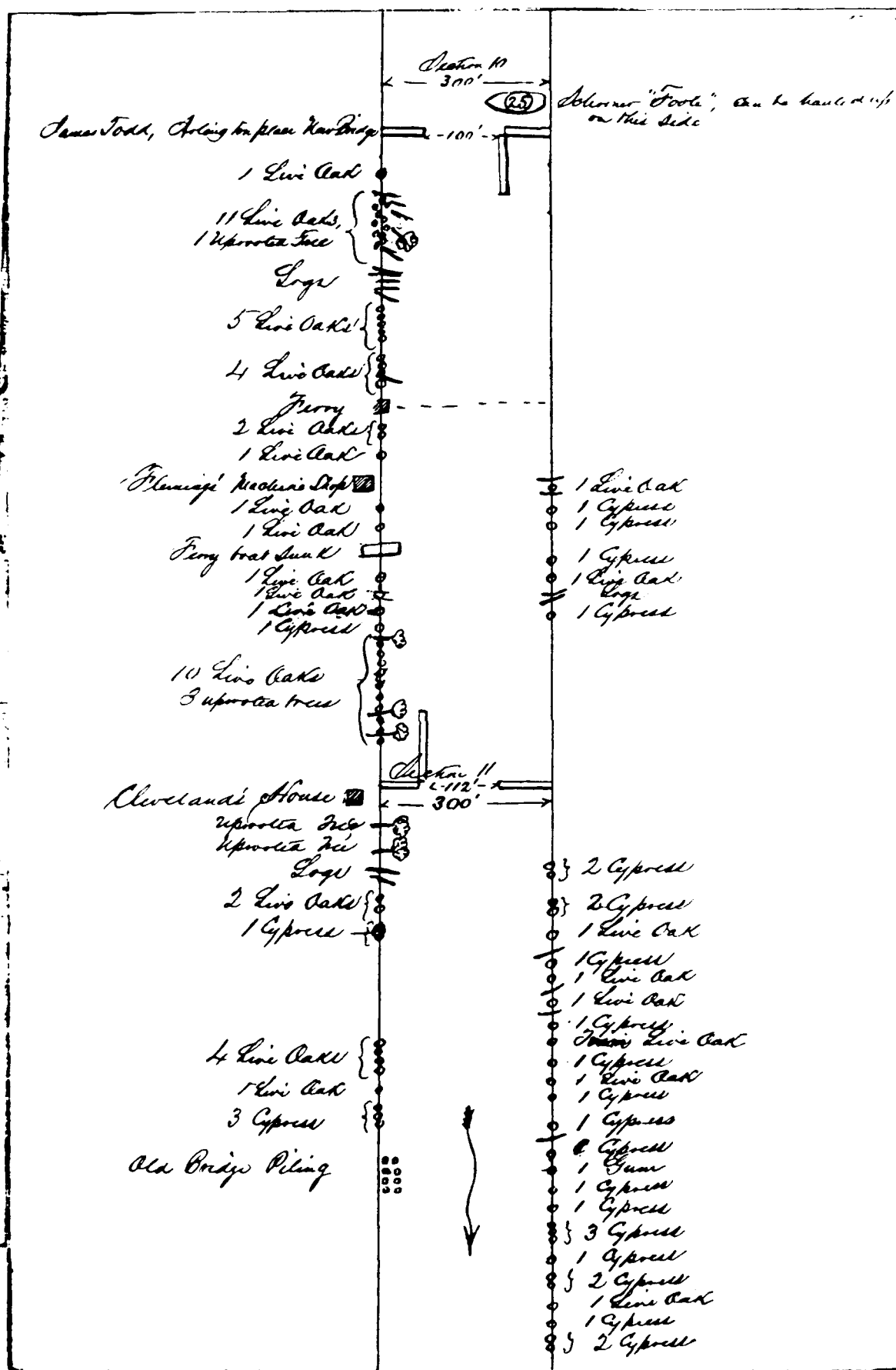
1 Live Oak	1	Log, 8' below surface imbedded in soil
		1 Cypress
		1 Cypress
		1 Cypress
		3 Cypress
Colonel Lebacet's House		
Ported Live Oak	Station 57	2 Cypress
Uprooted Tree	180'	
1 Live Oak		1 Gum Hickory
2 Live Oaks		2 Cypress
Upper Line of Franklin		1 Cypress

Recapitulation.

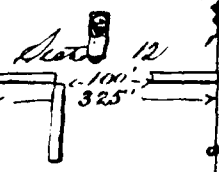
No. of Live Oaks to be felled,	297	No. of Miles of Clearing, underground - $7\frac{1}{2}$
" " " " the trained	70	Log & Stump - innumerable in hands.
No. of Cypress to be felled	493	
" " " " the trained,	23	
No. of Hickory, Gum, Ash		
Willow to be felled -	68	
No. of Uprooted Trees & removed	56	

Bay of Teac
Brewery
Signed
Franklin
to
Atchafalaya
Pages 23 to 32





George "The Shield" S. Howard
Daniels Bridge



- 1 Cypress
- 1 Sprouted Live Oak
- 1 Cypress
- 1 Cypress
- Log
- 1 Cypress
- 1 Cypress
- 2 Cypress

- 1 Cypress
- 1 Cypress
- 7 Cypress

- 7 Cypress
- 2 Live Oaks
- 1 Cypress
- 2 Cypress
- 1 Live Oak
- 2 Cypress

- 3 Cypress
- 1 Live Oak
- 1 Cypress
- 1 Live Oak
- 1 Cypress
- 1 Cypress

Flayed Sugar House
1 Cypress

Section B
325'

- 1 Live Oak
- 1 Live Oak
- 1 Cypress
- 1 Live Oak
- Trag, 50' from shore
- 2 Cypress
- 1 Hickory
- 1 Cypress

- 4 Cypress
- 1 Sprouted Live Oak
- 1 Live Oak
- Log
- 2 Live Oaks

- 1 Cypress
- 1 Sprouted Live Oak (Live Oak)
- 5 Log
- 1 Live Oak
- 5 Log
- 1 Cypress
- 1 Live Oak

- 12 Cypress

- 1 Sprouted Live Oak

Calverville

Three Kings' Warehouse

Section 14
320'

4 Cypress

Canal Bear "Hudson", 3' below surface

Wharf King 40' from shore

Sage Crane's Saw Mill

- 1 Gum
- 1 Cherry
- 1 Cypress
- 1 Live Oak
- 1 Live Oak
- 1 Live Oak
- 1 Live Oak
- 1 Cypress
- 1 Live Oak
- 1 Live Oak
- 2 Live Oaks
- 2 Live Oaks
- 1 Cypress

Wilder's Saw Mill

Section 15
320'

3 Cypress

2 Cypress

1 Cypress

1 Cypress

4 miles

Upturned Live Oak

1 Cypress

1 Cypress

2 Cypress

- 1 Cypress
- 1 Live Oak
- 1 Live Oak
- 1 Cypress

Section 16
320'

8 Live Oaks

7 Live Oaks

2 Cypress

4 Live Oaks

8 Live Oaks

Sawyer, 9 1/2' out of water

1/4 mile of Cypress standing

Section 17
330'

4 Cypress

1 Live Oak

1 Cypress

1 Live Oak

5 Live Oaks

1 Live Oak

1 Cypress

1 Cypress

1 Cypress

Veeder's Sugar Mill

1 Live Oak

1 Cypress

1 Live Oak

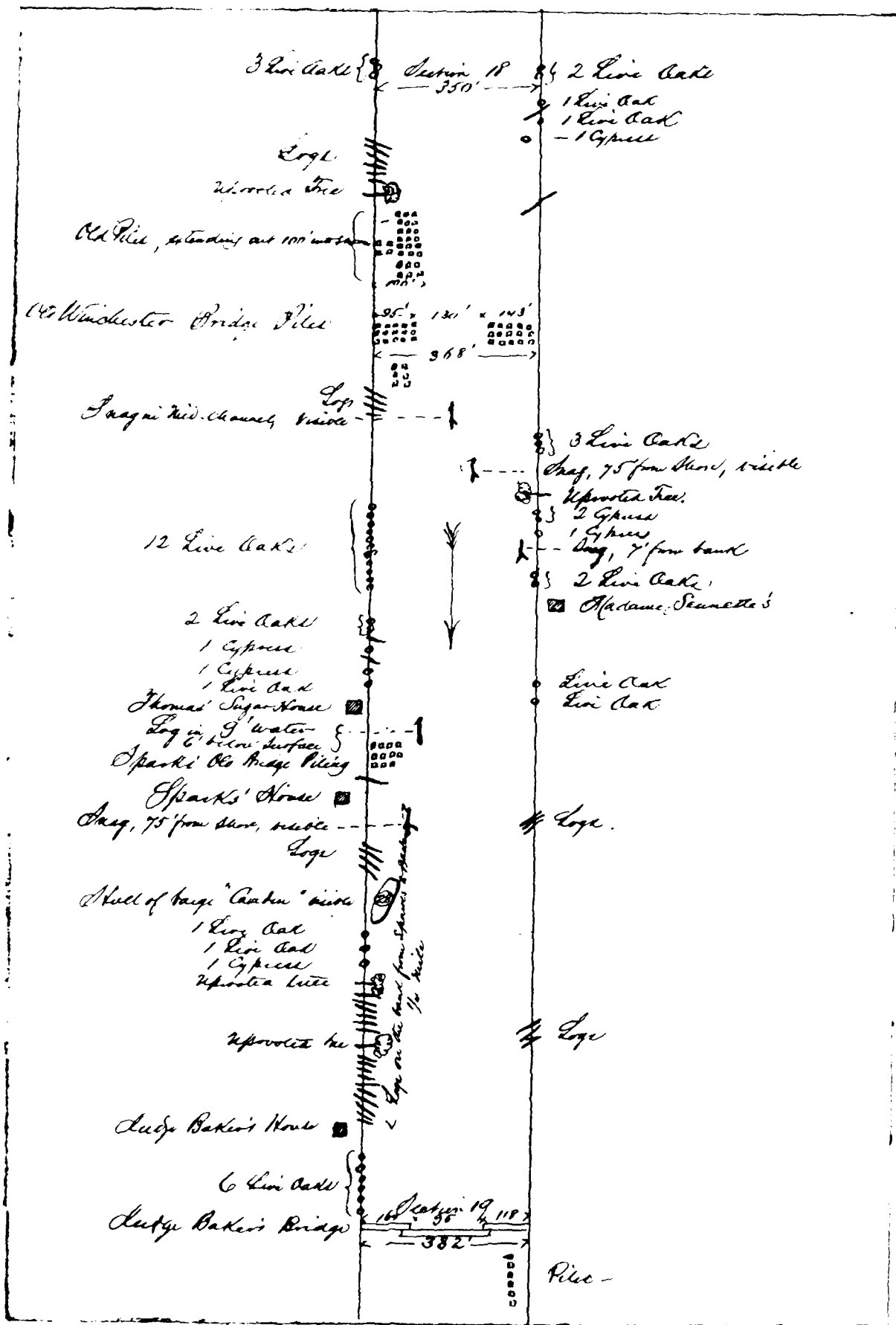
1 Live Oak

1 Cypress

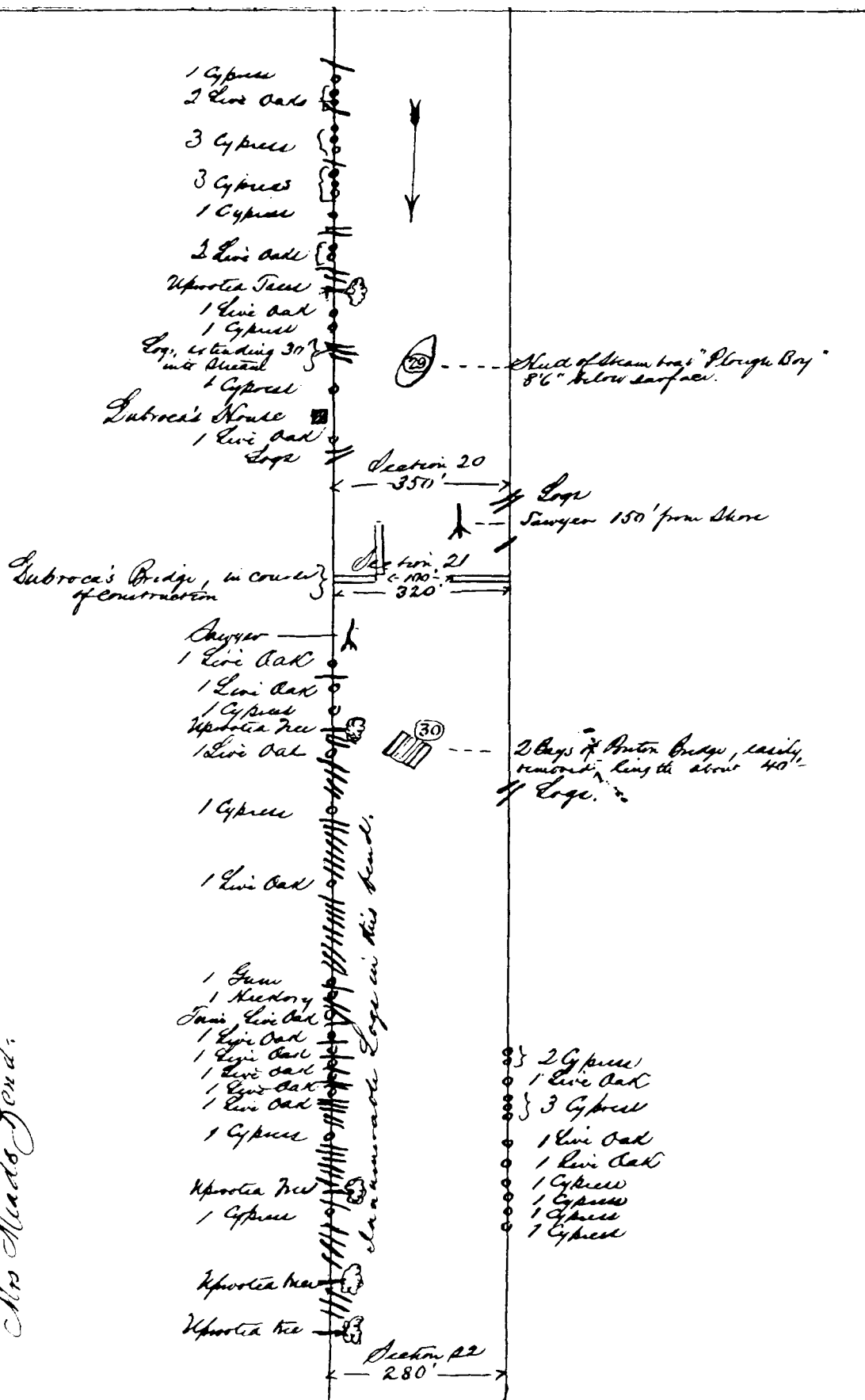
1 Live Oak

1 Cypress

1 Live Oak

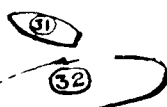


Mr. Mads' Pond.



Ochroa, named by Tag from stem
 of Cotton, and is now in 6' water
 In front of Cotton, 250' long
 Ben visible, stem 7' below surface

Section 22
280'



15' pole could not stand here bottom.

Section 23
280'

Loge

- 3 Live Oaks
- Upstream Tree
- 1 Live Oak
- 1 Hickory
- 1 Cypress
- 1 Live Oak
- 1 Live Oak
- 1 Live Oak
- 1 Cypress
- 1 Live Oak
- 1 Live Oak

Berke's Grand Woods
 Loge

Section 24
95'

Bridge loaded with bricks 3' below surface
 Bridge

- Upstream Tree
- 1 Cypress
- 1 Live Oak
- 1 Live Oak
- 1 Live Oak
- 2 Live Oaks
- 1 Live Oak
- 1 Live Oak
- 1 Hickory
- 1 Live Oak
- 1 Live Oak
- 1 Cypress
- 1 Cypress
- 2 Live Oaks
- 3 Cypress

Loge

- Upstream Tree
- 3 Live Oaks
- 3 Live Oaks
- 1 Live Oak
- 1 Live Oak
- 1 Live Oak
- 1 Live Oak

Col. Berke's House
 Sugar House

3 Live Oaks



16 Oak Bridge Pile
 2 Live Oaks

2 Live Oaks

Archafozaya R.

Recapitulation

No of Live Oaks to be felled,	304
No of Live Oaks to be trimmed	6
No of Cypress to be felled	211
No of Cypress to be trimmed	—
No of Hickory, Ash, Willow, etc to be felled—	811
No of Alder of Clearing undergrowth	
No of Spruce trees to be removed	35